

Information and Instructions

Approved by OMB  
3060 - 0798  
Est. Avg. Burden  
Per Response:  
1.25 hours

**FCC Application for Wireless Telecommunications Bureau  
Radio Service Authorization**

**NOTICE TO INDIVIDUALS REQUIRED BY THE PRIVACY ACT OF 1974 AND  
THE PAPERWORK REDUCTION ACT OF 1995**

We have estimated that each response to this collection of information will take on average 1.25 hours. Our estimate includes the time to read the instructions, look through existing records, gather and maintain required data, and actually complete and review the form or response. If you have any comments on this estimate, or on how we can improve the collection and reduce the burden it causes you, please write the Federal Communications Commission, AMD-PERM, Washington, DC 20554, Paperwork Reduction Project (3060-0798). We will also accept your comments via the Internet if you send them to [jboley@fcc.gov](mailto:jboley@fcc.gov). *Please do not send completed application forms to this address.*

You are not required to respond to a collection of information sponsored by the Federal government, and the government may not conduct or sponsor this collection unless it displays a currently valid OMB control number with this notice. This collection has been assigned OMB control number 3060-0798.

The FCC is authorized under the Communications Act of 1934, as amended, to collect the personal information we request in this form. We will use the information you provide to determine whether approving this application is in the public interest. If we believe there may be a violation or potential violation of a statute, FCC regulation, rule or order, your application may be referred to the Federal, state, or local agency responsible for investigating, prosecuting, enforcing or implementing the statute, rule, regulation or order. In certain cases, the information in your application may be disclosed to the Department of Justice or a court or adjudicative body when (a) the FCC; or (b) any employee of the FCC; or (c) the United States Government, is a party to a proceeding before the body or has an interest in the proceeding.

If you owe a past due debt to the Federal government, the Taxpayer Identification Number (*i.e.*, your Employer Identification Number or Social Security Number) and other information you provide may also be disclosed to the Department of Treasury Financial Management Service, other federal agencies and/or your employer to offset your salary, IRS tax refund or other payments to collect that debt. The FCC may also provide this information to these agencies through the matching of computer records when authorized.

In addition, all information provided in this form, except Taxpayer Identification Number, will be available for public inspection. If you do not provide the information we request on the form, the FCC may delay processing of your application or may return your application without action.

This notice is required by the Privacy Act of 1974, Public Law 93-579, December 31, 1974, 5 U.S.C. Section 552a(e)(3) and the Paperwork Reduction Act of 1995, Public Law 104-13, October 1, 1995, 44 U.S.C. 3507.



# Overview

## **Purpose of Form**

Form FCC 601 is a multi-purpose form. It is used to apply for an authorization to operate radio stations, amend pending applications, modify existing licenses, and perform a variety of other miscellaneous transactions (refer to page 8 and 9 of these instructions for a detailed list) in the Wireless Telecommunications Bureau (WTB) radio services. The WTB radio services that use this form include Public Mobile Services, Personal Communications Services, General Wireless Communications Services, Private Land Mobile Radio Services, Broadcast Auxiliary Services, Fixed Microwave Services, Maritime Services (excluding ships), and Aviation Services (excluding aircraft).

The purpose of this form is to collect data pertaining to the proposed request. This data is used by the FCC to determine whether the public interest would be served by a grant of the request.

Form FCC 601 replaces Forms FCC 313, 313R, 402, 402R, 405, 405A, 406, 415, 464, 464A, 489, 494, 503, 574, 574R, 600, and 701 for all purposes.

## **Introduction**

Form FCC 601 is a multi-part form comprising a main form and several optional schedules. Each application, amendment, modification, or other request must contain only one Main Form (pages 1, 2, and 3) but may contain as few or as many of the optional schedules as necessary.

## **Main Form**

The purpose of the Main Form is to obtain information sufficient to identify the filer, establish the filer's basic eligibility and qualifications, classify the filing, and determine the nature of the proposed service. The Main Form also contains the required certifications and signature block. The Main Form is required for every application, amendment, and modification filed on Form FCC 601.

## **Schedules**

The purposes of the optional schedules are as follows:

### **Schedule A**

The Schedule for Changes Affecting Multiple Call Signs or File Numbers is used to submit global changes to items on the FCC 601 Main Form that affect either multiple call signs or multiple file numbers.

### **Schedule B**

The Schedule for Geographically Licensed Services is used to apply for the required license authorization when the applicant has been determined to be the winning bidder at the close of an FCC auction.

### **Schedule C**

[Reserved for future use]

### **Schedule D**

The Schedule for Fixed Station Locations and Antenna Structures is used to supply technical information for fixed transmit station locations and antenna structures. It is also used by auction winners that must file technical data for international coordination or for an environmental assessment. File as many schedules as necessary to describe all fixed station locations, including antenna structures. This schedule is used in conjunction with Technical Data Schedules F, G, H, and J.

### **Schedule E**

The Schedule for Mobile, Temporary Fixed, and 6.1 Meter Control Station Locations is used to supply technical information for mobile transmit locations, temporary fixed stations, and 6.1 meter control stations. File as many schedules as necessary to describe all mobile transmit locations, temporary fixed stations, and 6.1 meter control stations. This schedule is used in conjunction with Technical Data Schedules G, H, and J.

### **Schedule F**

The Technical Data Schedule for the Cellular and Air-ground (Commercial Aviation) Radiotelephone Services (Part 22) is used for site-specific applications and amendments in the cellular and air-ground radiotelephone services. It is also used by auction winners that must file site-specific technical data for international coordination of a particular site. Schedule F is used to provide technical parameters of the facilities. This schedule is used in conjunction with Location Schedule D.

### **Schedule G**

The Technical Data Schedule for the Maritime and Aviation Services (Parts 80 and 87) is used for site-specific applications and amendments in the maritime and aviation services. It is also used by auction winners that must file site-specific technical data for international coordination of a particular site. Schedule G is used to provide technical parameters of the facilities. This schedule is used in conjunction with Location Schedules D and E.

### **Schedule H**

The Technical Data Schedule for the Private Land Mobile and Land Mobile Broadcast Auxiliary Radio Services (Parts 90 and 74) is used for site-specific applications and amendments in the private land and broadcast auxiliary radio services. It is also used by auction winners that must file site-specific technical data for international coordination of a particular site. Schedule H is used to provide technical parameters of the facilities. This schedule is used in conjunction with Location Schedules D and E.

**Schedule I**

The Technical Data Schedule for the Fixed Microwave and Microwave Broadcast Auxiliary Services (Parts 101 and 74) is used for site-specific applications and amendments in the fixed microwave and microwave broadcast auxiliary services. It is also used by auction winners that must file site-specific technical data for international coordination or for an environmental assessment of a particular site. Schedule I is used to provide technical parameters of the facilities.

**Schedule J**

The Technical Data Schedule for the Paging, Rural, Air-ground, (General Aviation), and Offshore Radiotelephone Services (Part 22) is used for site-specific applications and amendments in the paging, rural, air-ground, and offshore radiotelephone services. It is also used by auction winners that must file site-specific technical data for international coordination of a particular site. Schedule J is used to provide technical parameters of the facilities. This schedule is used in conjunction with Location Schedules D and E.

**Schedule K**

The Schedule for Required Notifications for Wireless Services is used to notify the FCC that, within the required time period, coverage or construction requirements have been satisfied, or compliance with yearly station construction commitments for licensees with approved extended implementation plans has been met. It is also used in the paging radiotelephone services to notify the FCC of a request for regular authorization for facilities previously operating under developmental authority.

**Schedule L**

The Schedule for Extension of Time Requests for Wireless Services is used to request additional time to either satisfy coverage or construction requirements.

**Schedules Required**

If you are applying for initial authorization in a market based service, you must file Schedule B in conjunction with your Main Form application.

If you are applying for a site-specific authorization in a market based service to fulfill environmental assessment requirements, file along with your Main Form Application, Schedule I for Microwave Radio Services or Schedule D for all other radio services.

If you are applying for a site-specific authorization in a market based service to fulfill international coordination requirements, file along with your Main Form Application, Schedule I for Microwave Radio Services or Schedule D and the appropriate technical data schedule for all other radio services.

If you are applying for authorization in a site licensed service which requires you to report technical data, file along with your Main Form the technical data schedule appropriate to the service for which you are applying:

Service	ULS Form/Schedule Title
All Geographically Licensed Services (Initial Application)	FCC 601 Main Form - WTB Radio Service Authorization Schedule B - Schedule for Geographically Licensed Services
Geographically Licensed Service (site-specific environmental assessment)	FCC 601 Main Form - WTB Radio Service Authorization Schedule I (Microwave Radio Services) Schedule D (all other Radio Services) - Schedule for Fixed Station Locations and Antenna Structures
Geographically Licensed Service (site-specific international coordination)	FCC 601 Main Form - WTB Radio Service Authorization Schedule I (Microwave Radio Services) Schedule D and appropriate technical data schedule as described below (all other Radio Services)
Cellular and Commercial Air-ground Services (Part 22)	FCC 601 Main Form - WTB Radio Service Authorization Schedule D - Schedule for Fixed Station Locations and Antenna Structures Schedule F - Technical Data Schedule for the Cellular and Air-ground (Commercial Aviation) Radiotelephone Services (Part 22)
Land Mobile - Part 22 Site-Specific Services	FCC 601 Main Form - WTB Radio Service Authorization Schedule D - Schedule for Fixed Station Locations and Antenna Structures Schedule E - Schedule for Mobile, Temporary Fixed, and 6.1 Meter Control Station Locations Schedule J - Technical Data Schedule for Paging, Rural, Air-ground (General Aviation), and Offshore Radiotelephone Services (Part 22)
Land Mobile - Part 90 Site-Specific Services	FCC 601 Main Form - WTB Radio Service Authorization Schedule D - Schedule for Fixed Station Locations and Antenna Structures Schedule E - Schedule for Mobile, Temporary Fixed, and 6.1 Meter Control Station Locations Schedule H - Technical Data Schedule for the Private Land Mobile and Broadcast Auxiliary Land Mobile Radio Services (Parts 90 and 74)
Microwave - Part 101 Site-Specific Services	FCC 601 Main Form - WTB Radio Service Authorization Schedule I - Technical Data Schedule for the Fixed Microwave and Microwave Broadcast Auxiliary Services (Parts 101 and 74)

Service	ULS Form/Schedule Title
Maritime Coast/Aviation Ground Services (Parts 80 and 87)	FCC 601 Main Form - WTB Radio Service Authorization Schedule D - Schedule for Fixed Station Locations and Antenna Structures Schedule E - Schedule for Mobile, Temporary Fixed, and 6.1 Meter Control Station Locations Schedule G - Technical Data Schedule for the Maritime and Aviation Services (Parts 80 and 87)
Broadcast Auxiliary - Land Mobile (Part 74)	FCC 601 Main Form - WTB Radio Service Authorization Schedule D - Schedule for Fixed Station Locations and Antenna Structures Schedule E - Schedule for Mobile, Temporary Fixed, and 6.1 Meter Control Station Locations Schedule H - Technical Data Schedule for the Private Land Mobile and Broadcast Auxiliary Land Mobile Radio Services (Parts 90 and 74)
Broadcast Auxiliary - Microwave (Part 74)	FCC 601 Main Form - WTB Radio Service Authorization Schedule I - Technical Data Schedule for the Fixed Microwave and Microwave Broadcast Auxiliary Radio Services (Parts 101 and 74)
Notification of: Completion of Coverage Requirements Completion of Construction Requirements Compliance with yearly station construction commitments for licensees with approved extended implementation plans Developmental Paging Authorization to a Regular Authorization	FCC 601 Main Form - WTB Radio Service Authorization Schedule K - Schedule for Required Notifications for Wireless Services
Extension of Time Request for: Completion of Coverage Requirements Completion of Construction Requirements	FCC 601 Main Form - WTB Radio Service Authorization Schedule L - Schedule for Extension of Time Requests for Wireless Services

## General Filing Instructions

### **Information Current and Complete**

Information filed with the FCC must be kept current and complete. The applicant must notify the FCC regarding any substantial and significant changes in the information furnished in the application(s). See Section 1.65 of the Commission's rules.

### **Applicable Rules and Regulations**

Applicants should obtain the relevant parts of the FCC's rules in 47 CFR. Copies of 47 CFR may be purchased from the Superintendent of Documents; Government Printing Office; Washington, DC 20402; (202) 512-1800. Refer also to the Government Printing Office's Website at <http://www.access.gpo.gov>. Some FCC rules require applicants to attach one or more exhibits to an application in addition to the information requested in the application form.

### **Processing Fee and Filing Locations**

A processing fee may be required with this form. To determine the required fee amount, refer to Subpart G of Part 1 of the Code of Federal Regulations (47 CFR Part 1, Subpart G) and the current Wireless Telecommunications Bureau Fee Filing Guide. For assistance with fees applicable to the radio services governed by the FCC's rules, call (202) 418-0220 or 1-888-CALL-FCC (225-5322). The Fee Filing Guide can be downloaded from the FCC's Internet site @ <http://www.fcc.gov/fees/wtbguide.html> or obtained by calling the FCC's Forms Distribution Center at 1-(800) 418-3676.

Paper applications for purposes other than renewal (only) and requiring a fee must be submitted to Federal Communications Commission, Wireless Bureau Applications, P. O. Box 358130, Pittsburgh, PA, 15251-5130. Paper applications for purpose of renewal (only) and requiring a fee must be submitted to Federal Communications Commission, Wireless Bureau Applications, P. O. Box 358245, Pittsburgh, PA, 15251-5245.

Non-feeable paper applications should be mailed to Federal Communications Commission, 1270 Fairfield Road, Gettysburg, PA 17325-7245. (If this application is filed as a result of an auction, please specify the Auction Number as indicated in your bidder's package or Public Notice.)

### **Packages**

If filing manually, the Main Form and the applicable schedules should be submitted as one package, stapled in the upper left corner. The Main Form should be first with the schedules attached in alphabetical order. Applicants filing electronically are not required to submit paper copies.

### **Paper Copies**

The number of paper copies of this application required to be filed is one original. Applicants filing electronically are not required to submit paper copies.

### **Exhibits**

Each document required to be filed as an exhibit should be current as of the date of filing. Each page of every exhibit must be identified with the number or letter of the exhibit, the number of the page of the exhibit, and the total number of pages of the exhibit. If material is to be incorporated by reference, see the instruction on incorporation by reference. If interference studies are required by rule, attach these as an exhibit.

### **Incorporation by Reference**

You may incorporate by reference documents, exhibits, or other lengthy showings already on file with the FCC only if: the information previously filed is more than one 8½" by 11" page in length, and all information therein is current and accurate in all significant respects; the reference states specifically where the previously filed information can be found (i.e., station call sign and application file number, title of proceeding, docket number and legal citations), including exhibit and page references. Use the relevant item number followed by 'A'. Items that call for numbers, or which can be answered 'Y' or 'N' or other short answers must be answered directly without reference to a previous filing.

### **Waiver Requests**

Requests for waiver must contain as an exhibit a statement of reasons sufficient to justify a waiver. The required showing must be made for all rule waivers desired, identifying the specific rules or policies for which the waiver is requested. Refer to the Wireless Telecommunications Bureau Fee Filing Guide for fee requirements for waivers. For assistance with fees applicable to the radio services governed by the FCC's rules, call (202) 418-0220 or 1-888-CALL-FCC (225-5322), or e-mail questions to FCCITD@fcc.gov.

### **Frequency Coordinations**

Applications for certain station authorizations in Parts 80, 87, and 90 may be required to be initially submitted to a certified frequency coordinator for the radio service or frequency pool involved. Refer to the rules for your radio service for detailed information regarding frequency coordination. For frequency coordination fee information, contact the frequency coordinators for your radio service.

After the completion of frequency coordination, some radio services require the frequency coordinator to forward these applications to the FCC. Check with your frequency coordinator for applicability. All other applications shall be filed by the applicant at the correct address listed on the most current Fee Filing Guide. Applications should be filed at least sixty (60) days prior to the date upon which the radio facilities are required to be in operation.

For information regarding certified coordinators for your radio service, contact the Federal Communications Commission, 1270 Fairfield Road, Gettysburg, PA 17325-7245, call 1-888-CALL-FCC (225-5322), or e-mail questions to FCCITD@fcc.gov.

### **English to Metric Conversions**

All heights and distances must be provided as metric values. The following English to Metric equivalents should be used to convert heights and distances, where necessary:

1 foot	=	0.3048 meters
1 mile	=	1.6093 kilometers
1 nautical mile	=	1.85 kilometers

### **For Assistance**

For assistance with this application, contact the Federal Communications Commission, 1270 Fairfield Road, Gettysburg, PA 17325-7245, call 1-888-CALL-FCC (225-5322), or e-mail questions to FCCITD@fcc.gov.

### **Electronic Filers**

Applicants filing electronically should follow procedures contained in online help files. For technical assistance with filing electronically, contact the Wireless Telecommunications Bureau Technical Support line, (202) 414-1250.

# Instructions for FCC 601 Main Form

## •Radio Service Code

Item 1 Enter the Radio Service Code for which the applicant is filing by inserting the appropriate code from the following list:

### Geographically Licensed Services

Cellular Radiotelephone .....	CL
General Wireless Communications Service (GWCS) .....	GW
218-219 MHz Service .....	ZV
Local Multipoint Distribution Service (LMDS) .....	LD
Location and Monitoring Service, Multilateration (LMS) .....	LS
Paging and Radiotelephone, Market Area	
Part 22 Paging .....	CZ
Part 90, 929-930 MHz Exclusive .....	GC
Personal Communications Service (PCS)	
Broadband .....	CW
Narrowband .....	CN
Public Coast, Market Area .....	PC
SMR, 806-821/851-866 MHz, Market Area .....	YC
SMR, 896-901/935-940 MHz, Market Area .....	YD
Wireless Communications Service (WCS) .....	WS
220 MHz, Market Area .....	QA
39 GHz, Market Area .....	TN

### Site-Specific Land Mobile

#### Part 22 - Site-Specific

Air-ground	
Commercial (800 MHz) .....	CA
General (454 MHz) .....	CG
Offshore Radiotelephone .....	CO
Paging and Radiotelephone, Site-Specific .....	CD
Rural Radiotelephone .....	CR
BETRS .....	CB

#### Part 90 - Below 800 MHz

Industrial/Business Pool - Commercial, Conventional .....	IK
Industrial/Business Pool - Commercial, Trunked .....	YK
Industrial/Business Pool - Private, Conventional .....	IG
Industrial/Business Pool - Private, Trunked .....	YG
Land Mobile Radiolocation .....	RS
Public Safety Pool, Conventional .....	PW
Public Safety Pool, Trunked .....	YW
220 MHz, Phase I Nationwide Commercial 5-Channel .....	NC
220 MHz, Site-Specific	
Non-Nationwide Data .....	QD
Non-Nationwide Other .....	QO
Non-Nationwide Public Safety/Mutual Aid .....	QM
Non-Nationwide, 5-Channel Trunked .....	QT

#### Part 90 - Above 800 MHz

Business	
806-821/851-866 MHz, Conventional .....	GB
896-901/935-940 MHz, Conventional .....	GU
806-821/851-866 MHz, Trunked .....	YB
896-901/935-940 MHz, Trunked .....	YU
Industrial/Land Transportation	
806-821/851-866 MHz, Conventional .....	GO
896-901/935-940 MHz, Conventional .....	GI
806-821/851-866 MHz, Trunked .....	YO
896-901/935-940 MHz, Trunked .....	YI
Land Mobile Radiolocation .....	RS
Location and Monitoring Service (LMS)	
902-928 MHz Location Wideband (Grandfathered AVM) .....	LW
902-928 MHz Location Narrowband (Non-Multilateration) .....	LN

Paging	
929-930 MHz, Site-Specific	GS
Public Safety/Special Emergency	
806-821/851-866 MHz, Conventional	GP
896-901/935-940 MHz, Conventional	GA
806-821/851-866 MHz, Trunked	YP
896-901/935-940 MHz, Trunked	YA
Public Safety, National Plan	
821-824/866-869 MHz, Conventional	GF
821-824/866-869 MHz, Trunked	YF
SMR, Site-Specific	
806-821/851-866 MHz, Conventional	GX
896-901/935-940 MHz, Conventional	GR
806-821/851-866 MHz, Trunked	YX
896-901/935-940 MHz, Trunked	YS

#### Site-Specific Microwave

Digital Electronic Message Service	
Common Carrier	CE
Private	PE
Local Television Transmission	CT
Microwave Radiolocation	WR
Point-to-Point Microwave, Common Carrier	CF
Point-to-Point Microwave, Private	
Eligibility – Aviation	WA
Eligibility – Industrial/Business	MG
Eligibility – Marine	WM
Eligibility – Public Safety	MW

#### Maritime Coast/Aviation Ground

Maritime	
Alaska Group	MK
Coastal Group	MC
Marine Auxiliary	MA
Marine Radiolocation Land	MR
Aviation	
Aeronautical and Fixed	AF
Aviation Auxiliary Group	AA
Aviation Radionavigation	AR

#### Broadcast Auxiliary

Land Mobile	
Broadcast Auxiliary – Low Power	LP
Broadcast Auxiliary – Remote Pickup	RP
Microwave	
Aural Intercity Relay	AI
Aural Microwave Booster	AB
Aural Studio Transmitter Link	AS
TV Intercity Relay	TI
TV Microwave Booster	TB
TV Pickup	TP
TV Studio Transmitter Link	TS
TV Translator Relay	TT

## •Application Purpose

**Item 2** Indicate the purpose for which the application is being filed by inserting the appropriate two-letter abbreviation from the following list. Only one purpose may be specified.

**NE - New:** To request a new license. This purpose should only be used for initial applications.

**MD - Modification:** To request a change in the conditions of any data (administrative or technical) for a license during the term of that license. This purpose is also used to apply for a site-specific authorization in a market based service to fulfill environmental assessment requirements or international coordination requirements. Use Item 5 to provide the call sign of the affected station. All appropriate schedules must be completed and attached, and must accurately describe the data that has been modified. See applicable Commission rules.

**Note:** After a license is modified, the FCC will issue a new license and previous versions of the license will no longer be valid, regardless of the expiration date shown. License terms will not be extended as a result of an application for modification.

**AM - Amendment:** To amend a previously-filed, currently pending application. Use Item 4 to provide the file number of the application. All appropriate schedules must be completed and attached, and must accurately reflect the amendment's data. See applicable Commission rules. If the amendment affects multiple file numbers (administrative data only), complete and attach Schedule for Changes Affecting Multiple Call Signs or File Numbers, Form FCC 601, Schedule A.

**RO - Renewal Only:** To renew an existing authorization, Special Temporary Authorization (STA), or developmental authorization that has not expired and where no changes in the license conditions are being requested at the time of renewal. (To make any modifications to the main form or technical data, use the Renewal/Modification purpose.) Use Item 5 to provide the call sign of the affected station. If the renewal affects multiple call signs, complete and attach Schedule for Changes Affecting Multiple Call Signs or File Numbers, Form FCC 601, Schedule A.

**RM - Renewal/Modification:** To renew an existing authorization, Special Temporary Authorization (STA), or developmental authorization and request a change in the conditions of that authorization. Use Item 5 to provide the call sign of the affected station. All appropriate schedules must be completed and attached, and must accurately describe the data that has been modified.

**CA - Cancellation of License:** To cancel an existing license. In Item 5 provide the call sign to be canceled. To cancel multiple licenses, complete and attach Schedule for Changes Affecting Multiple Call Signs or File Numbers, Form FCC 601, Schedule A, listing all the call signs to be canceled. This action cancels all facilities operating under the call sign. To delete specific authorized facilities under a call sign, use the modification purpose.

**CO - Consolidate Call Signs:** To consolidate multiple call signs into a single call sign, list existing call signs to be deleted on Schedule A, Schedule for Changes Affecting Multiple Call Signs or File Numbers. The call sign to be retained should be listed in Item 5 of the FCC 601 Main Form.

**WD - Withdrawal of Application:** To withdraw a previously-filed, currently pending application. Use Item 4 to provide the file number of the application. If the withdrawal affects multiple file numbers, complete and attach Schedule for Changes Affecting Multiple Call Signs or File Numbers, Form FCC 601, Schedule A.

**DU - Duplicate License:** To request a hardcopy duplicate of an existing license. Use Item 5 to provide the call sign of the affected station. If duplicate licenses are needed for multiple call signs, complete and attach Schedule for Changes Affecting Multiple Call Signs or File Numbers, Form FCC 601, Schedule A.

**NT - Required Notifications:** To notify the FCC that, within the required time period, coverage or construction requirements have been satisfied or compliance with yearly station construction commitments for licensees with approved extended implementation plans has been met. This schedule can also be used to notify the FCC of a request in the Paging Radiotelephone Services for regular authorization for facilities previously operating under developmental authority. Also complete and attach Required Notifications for Wireless Services, Form FCC 601, Schedule K.

**EX - Request for Extension of Time:** To request additional time to satisfy coverage or construction requirements. Also complete and attach Extension of Time Requests for Wireless Services, Form FCC 601, Schedule L.

**AU - Administrative Update:** To request a change of any administrative data on a license. These changes are limited to the following: Changes in license name (without a change in ownership, control or corporate structure), address, phone number, fax number, email, contact information, and control point information. Use Item 5 to provide the call sign of the



affected station. If the administrative update is needed for multiple call signs, complete and attach Schedule for Changes Affecting Multiple Call Signs or File Numbers, Form FCC 601, Schedule A. Note, when updating control point information, only one call sign may be filed per Administrative Update application.

**Note:** After a license is modified, the FCC will issue a new license and previous versions of the license will no longer be valid, regardless of the expiration date shown. License terms will not be extended as a result of an application for modification.

**Item 3** If the filing is a request for a Developmental License or a Special Temporary Authorization (STA), enter 'D' or 'S', respectively. Otherwise, enter 'N' for Not Applicable. The FCC may grant applications for developmental authority to construct and operate transmitters for the purpose of developing a new radio service or a new technology not regularly authorized under specific FCC rules, subject to the appropriate requirements governing developmental authorizations contained in the FCC rules. In circumstances requiring immediate or temporary use of facilities, request may be made for special temporary authority to install and/or operate new or modified equipment, subject to the appropriate requirements governing Special Temporary Authorizations contained in the FCC rules.

**Item 4** If the filing is an Amendment or Withdrawal of a previously-filed currently pending application, provide the file number of the original application. This information can be obtained by contacting the FCC at 1-888-CALL-FCC (225-5322). If the amendment or withdrawal affects multiple file numbers, complete and attach Schedule for Changes Affecting Multiple Call Signs or File Numbers, Form FCC 601, Schedule A.

**Item 5** The information requested in this item identifies the existing stations to which the filing is relevant. If the filing is a request for a Modification, Renewal Only, Renewal/Modification, Cancellation, Duplicate, or Administrative Update of an existing license, enter the call sign of the license. If the request affects multiple call signs, complete and attach Schedule for Changes Affecting Multiple Call Signs or File Numbers, Form FCC 601, Schedule A.

If the filing is a request to Consolidate Call Signs, enter the call sign to be retained in this item and list the existing call signs to be deleted on Schedule A, Schedule for Changes Affecting Multiple Call Signs or File Numbers.

**Item 6** This item is optional. If the filing is a request for a New, Amendment, Renewal Only, or a Renewal/Modification, enter the requested authorization expiration date. Applicants may, if desired, request the month and day of license expiration. However, in no cases will licenses be granted for terms that exceed the license term as governed by the rules for each service.

**Item 7** This question applies only to site-specific (other than Part 101 Microwave) and Cellular authorizations. If the filing is a request is for a Modification, Renewal/Modification, or Amendment (of a currently pending New or Modification) of a site-specific authorization, indicate whether the request will increase or expand the composite coverage area, service area, or interference contour as defined in the Commission's rules for your service; or for a Cellular authorization, indicate whether the request will result in an expansion of the CGSA (after expiration of the 5 year build out period), a *de minimus* SAB extension into unserved area in an adjacent market, or a change of channel block as defined in Part 22 of the Commission's rules. If the answer is 'Y', the filing will be treated as a request for major modification or amendment. If the rules for your service do not define coverage area, service area, or interference contour, enter 'N'.

**Item 8a** If the filing is a request for a waiver of the Commission's rules, enter 'Y' and attach an exhibit that lists the rule section(s) of the affected rules and explains the circumstances. Otherwise, enter 'N'.

**Item 8b** Waiver requests in certain non-common carrier wireless services are subject to filing fees based on the number of rules for which waiver is sought multiplied by the number of stations affected by the waiver. If the waiver request involves a covered service, multiply the number of stations by the number of rule sections. Consult the Wireless Telecommunications Bureau Fee Filing Guide for information on which services are covered and fee amounts.

**Item 9** Enter 'Y' if attachments are being filed with this application. Otherwise, enter 'N'.

#### ►Applicant Information

Items 10 through 24 identify the applicant. If an authorization is granted, the information provided will become the licensee's name, address, and telephone number of record. The FCC will send the authorization and notice of all final dispositions of an application to this address.

**Item 10a** For individuals, enter the Social Security Number. For all other filers, enter the Employer Identification Number. This data is required to comply with the Debt Collection Improvement Act of 1996. This information will not be made available for public inspection.

Item 10b This item must be filled out if in addition to providing a TIN, you have obtained a Sub-Group Identification Number (SGIN) from the FCC. A SGIN is required in instances where the applicant or licensee does not have a unique TIN because it is a sub-group or department of the entity identified by the TIN (e.g., a governmental entity or academic institution) and therefore shares the TIN with other subgroups or departments of the same entity. The SGIN allows each sub-group to track the licenses it holds. The SGIN is not needed for entities that have a unique TIN that is not used by any other licensee.

Item 11 This item indicates the legal entity type of the applicant. Enter 'I' for Individual, 'U' for Unincorporated Association, 'T' for Trust, 'G' for Government Entity, 'J' for Joint Venture, 'C' for Corporation, 'L' for Limited Liability Corporation, 'P' for Partnership, or 'O' for Consortium.

Items 12-13 If Item 11 is 'I' (for Individual), enter the name of the person applying in Item 12. Otherwise, enter the name of the entity in Item 13.

Item 14 Applicants must identify a real party (parties) in interest if different from the applicant. If the applicant is also the real party in interest, enter the applicant's name in this item. If a party other than the applicant is the real party in interest (e.g., a parent or other controlling entity), enter that party's name in this item. If there is more than one real party in interest, attach an exhibit detailing all parties in interest.

The Real Party in Interest is defined as a person who "has an ownership interest, or will be in a position to actually or potentially control the operation of the station." *Astroline Communications Company Limited Partner v. FCC*, 857 F.2d 1556, 1564 (D.C. Cir. 1988); see also *In Re Applications of Georgia Public Telecommunications Commission, et al.*, MM Docket No. 89-337, 7 FCC Rcd 7996 (rel. Dec. 9, 1992); *In Re Applications of Madalina Broadcasting, et al.*, MM Docket No. 91-100, 8 FCC Rcd 6344 (rel. September 3, 1993).

Item 15 Enter the Taxpayer Identification Number for the Real Party in Interest. For individuals, enter the Social Security Number. For all other filers, enter the Employer Identification Number. This information will not be made available for public inspection.

Items 16-22 Enter the name, address, and telephone number of the person to whom the FCC should send correspondence. You may enter a post office box number in Item 17 or a street address in Item 18, or enter information for both items. Enter the city, state, and zip code in Items 19, 20, and 21, respectively. Refer to FCC 601 Main Form Instructions, Appendix II, for a list of valid state, jurisdiction, and area abbreviations. Enter a telephone number, including area code, in Item 22.

Items 23 and 24 Enter the applicant's fax number and e-mail address, if desired and available.

Failure to respond to FCC correspondence sent to the address of record may result in dismissal of an application, liability for forfeiture, or revocation of an authorization.

#### ►Contact Information

Items 25-34 These items identify the contact representative, if different from the applicant. This is usually the headquarters office of a large company, the law firm or other representative of the applicant, or the person or company that prepared or submitted the application on behalf of the applicant. If there is a question about the application, an FCC representative will communicate with the applicant's contact representative.

If this section is used, a name (Item 25) and telephone number (Item 32) are required at a minimum. If the address items are completed, you may enter a post office box number in Item 27 or a street address in Item 28, or enter information for both items. Refer to FCC 601 Main Form Instructions, Appendix II, for a list of valid state, jurisdiction, and area abbreviations.

#### ►Regulatory Status

Item 35 This item identifies the type(s) of radio service offerings being provided. Enter all types of radio service offerings that apply. Enter 'C' for Common Carrier, 'N' for Non-Common Carrier, and 'P' for Private, internal communications. Use the Modification (MD) purpose in Item 2 to change or add radio service offerings.

All entities that are telecommunications carriers should select common carrier on this form. The term 'telecommunications carrier' means any provider of telecommunications services, except that such term does not include aggregators of telecommunications services (the term 'aggregator' means any person that, in the ordinary course of its operations, makes telephones available to the public or to transient users of its premises, for interstate telephone calls using a provider of operator services). A telecommunications carrier shall be treated as a common carrier under the Communications Act and the Commission's rules (i.e., as an entity which holds itself out for hire indiscriminately, in interstate or foreign communications by wire or radio, or in interstate or foreign radio transmission of energy, for the purpose of carrying transmissions provided by the customer), only to the extent that it is engaged in providing telecommunications services.

The term 'telecommunications service' means the offering of telecommunications (i.e., the transmission, between or among points specified by the user, of information of the user's choosing, without change in the form or content of the information as sent and received) for a fee directly to the public, or to such classes of users as to be effectively available directly to the public, regardless of the facilities used.

Non-common carriers do not hold themselves out indiscriminately for hire as carriers of communications provided by the customer. A person engaged in radio broadcasting shall not, insofar as such person is so engaged, be deemed a common carrier. Thus, those entities meeting this definition would select non-common carrier for this item.

Private internal users are those entities that utilize telecommunications services purely for internal business purposes or public safety communications and not on a for hire or for profit basis. Such entities should select 'Private' for this item.

#### ►Type of Radio Service

Item 36 This item identifies all types of radio services for the applicant. Enter 'F' for Fixed, 'M' for Mobile, 'R' for Radiolocation, and 'S' for Satellite. Enter all types of radio services, as applicable.

Item 37 Mark this item 'Y' if the applicant proposes to provide interconnected service to the public switched telephone network, as defined in the FCC rules. Otherwise, mark this item 'N'.

#### ►Fee Status

Items 38-39 These items allow the applicant to apply for exemption from FCC application fees and regulatory fees. See the instructions for FCC Remittance Advice, FCC Form 159.

#### ►Alien Ownership Questions

These items enable the FCC to determine whether an applicant is eligible under Section 310(a) and (b) of the Communications Act of 1934, as amended, to hold a station license. Applicants are required to answer these questions only if 1. they are filing Form 601 for one of the following purposes indicated in Item 2: New, Amendment, Modification, or Renewal/Modification; and 2. the answers have changed from those previously provided. Applicants using Form 601 for any other purpose are not required to answer these questions.

Item 40 All applicants filing Form 601 for one of the purposes indicated above must answer Item 40. The FCC cannot grant an authorization to a foreign government or the representative of a foreign government. Therefore, if the true and correct answer to Item 40 is 'Yes', the applicant is not eligible for a license and the FCC will dismiss the application, if filed, without further consideration.

Items 41-44 Only applicants to provide common carrier service must answer Items 41-44. The FCC cannot grant an authorization to provide common carrier service to any applicant for which the true and correct answer to any of Items 41, 42, or 43 is 'Yes.' The FCC will dismiss the application, if filed, without further consideration.

If the true and correct answer to Item 44 is 'Yes', the applicant must attach an exhibit explaining the circumstances. In the exhibit, the applicant must demonstrate how allowing the applicant to hold the requested license is consistent with the Commission's policies pursuant to Section 310(b)(4) of the Communications Act of 1934. In general, the Commission has indicated that there is a strong presumption that indirect foreign ownership of common carrier radio licensees by entities whose home markets are in countries that are members of the World Trade Organization (WTO) serves the public interest. If more than 25 percent of the ownership of an entity that controls a common carrier radio licensee is attributable to parties whose home markets are in non-WTO member countries, the Commission will evaluate whether those markets offer effective competitive opportunities to U.S. investors in the same service sector. See Rules and Policies on Foreign Participation in the U.S. Telecommunications Market, IB Docket No. 97-142, Report and Order and Order on Reconsideration, FCC 97-398, 12 FCC Rcd 23,891, ¶¶ 97-118, 131 (1997).

#### ►Basic Qualification Questions

Items 45-48 These items enable the FCC to determine whether an applicant is eligible under Section 310(a) and (b) of the Communications Act of 1934, as amended, to hold a station license. Applicants are required to answer these questions only if 1. they are filing Form 601 for one of the following purposes indicated in Item 2: New, Amendment, Modification, or Renewal/Modification; and 2. the answers have changed from those previously provided. Applicants using Form 601 for any other purpose are not required to answer these questions. If the applicant responds 'Yes' to any question and has previously provided a statement and explanation regarding the circumstances as an attachment to a prior application filed in ULS, and the facts and circumstances are unchanged, the applicant may refer to the previous application, by identifying the application file number and indicating the disposition of the prior application.

► **Ethnicity, Race, and Gender question (Optional)**

Item 49 The information is optional and is requested for informational purposes only. Responses to this item will in no way affect processing of applications.

► **General Certification Statements**

By signing this form, the applicant certifies that the statements listed in this section are true, complete, correct, and made in good faith.

► **Signature**

Items 50-52 These items must be completed. To be acceptable for filing, applications and amendments must be signed in accordance with Part 1 of the FCC rules. The signor must be a person authorized to sign the application. Paper originals of applications must bear an original signature. On paper originals, neither rubber-stamped nor photocopied signatures are acceptable. For filers filing electronically via ULS, the electronic signature shall consist of the name of the applicant typed on the application as a signature.

## Appendix I

### List of Counties, by State, Having Areas North of Line A

For use with Schedules D, E, and I

**Idaho**  
Bonner  
Boundary  
Shoshone

**Indiana**  
Allen  
De Kalb  
Steuben

**Maine**  
Aroostook  
Franklin  
Hancock  
Kennebec  
Oxford  
Penobscot  
Piscataquis  
Somerset  
Waldo  
Washington

**Michigan**  
Alcona  
Alger  
Alpena  
Antrim  
Arenac  
Baraga  
Bay  
Branch  
Calhoun  
Charlevoix  
Cheboygan  
Chippewa  
Claire  
Clinton  
Crawford  
Delta  
Dickinson  
Eaton  
Emmett  
Genesee  
Gladwin  
Gogebic  
Griatiot  
Hillsdale  
Houghton  
Huron  
Ingham  
Ionia  
Iosco  
Iron  
Isabella  
Jackson  
Kalkaska  
Keweenaw  
Lapeer  
Leelanau  
Lenawee  
Livingston  
Luce  
Mackinac  
Macomb

Marquette  
Menominee  
Midland  
Missaukee  
Monroe  
Montcalm  
Montmorency  
Oakland  
Ogemaw  
Ontonagon  
Oscoda  
Otsego  
Presque Isle  
Roscommon  
Saginaw  
Sanilac  
Schoolcraft  
Shiawassee  
St. Clair  
Tuscola  
Washtenaw  
Wayne

**Minnesota**  
Beltrami  
Carlton  
Clearwater  
Cook  
Itasca  
Kittson  
Koochiching  
Lake  
Lake of the Woods  
Marshall  
Pennington  
Polk  
Roseau  
St. Louis

**Montana**  
Blaine  
Chouteau  
Daniels  
Flathead  
Glacier  
Hill  
Lake  
Liberty  
Lincoln  
McCone  
Phillips  
Pondera  
Richland  
Roosevelt  
Sanders  
Sheridan  
Teton  
Toole  
Valley

**New Hampshire**  
Carroll  
Coos  
Grafton

**New York**  
Allegany  
Cattaraugus  
Cayuga  
Chautauqua  
Clinton  
Erie  
Essex  
Franklin  
Genesee  
Hamilton  
Herkimer  
Jefferson  
Lewis  
Livingston  
Madison  
Monroe  
Niagara  
Oneida  
Onondaga  
Ontario  
Orleans  
Oswego  
Seneca  
Steuben  
St. Lawrence  
Warren  
Washington  
Wayne  
Wyoming  
Yates

**North Dakota**  
Benson  
Bottineau  
Burke  
Cavalier  
Divide  
Grand Forks  
McHenry  
McKenzie  
Mountrail  
Nelson  
Pembina  
Pierce  
Ramsey  
Renville  
Rolette  
Towner  
Walsh  
Ward  
Williams

**Ohio**  
Ashland  
Ashtabula  
Cuyahoga  
Defiance  
Erie  
Fulton  
Geauga  
Hancock  
Henry  
Huron

Lake  
Lorain  
Lucas  
Medina  
Ottawa

Paulding  
Portage  
Putnam  
Sandusky  
Seneca  
Summit  
Trumbull  
Williams  
Wood

**Pennsylvania**  
Crawford  
Erie  
Warren

**Vermont**  
Addison  
Caledonia  
Chittenden  
Essex  
Franklin  
Grand Isle  
Lamoille  
Orange  
Orleans  
Rutland  
Washington  
Windsor

**Washington**  
Chelan  
Clallam  
Douglas  
Ferry  
Grays Harbor  
Island  
Jefferson  
King  
Kitsap  
Mason  
Okanogan  
Pend Oreille  
Pierce  
San Juan  
Skagit  
Snohomish  
Spokane  
Stevens  
Whatcom

**Wisconsin**  
Ashland  
Bayfield  
Douglas  
Florence  
Forest  
Iron  
Vilas

## Appendix II

### STATE TABLE

#### Abbreviations for States, Jurisdictions, and Areas

AL	Alabama	NJ	New Jersey
AK	Alaska	NM	New Mexico
AZ	Arizona	NY	New York
AR	Arkansas	NC	North Carolina
CA	California	ND	North Dakota
CO	Colorado	OH	Ohio
CT	Connecticut	OK	Oklahoma
DE	Delaware	OR	Oregon
DC	District of Columbia	PA	Pennsylvania
FL	Florida	RI	Rhode Island
GA	Georgia	SC	South Carolina
GM	Gulf of Mexico	SD	South Dakota
HI	Hawaii	TN	Tennessee
ID	Idaho	TX	Texas
IL	Illinois	UT	Utah
IN	Indiana	VT	Vermont
IA	Iowa	VA	Virginia
KS	Kansas	WA	Washington
KY	Kentucky	WV	West Virginia
LA	Louisiana	WI	Wisconsin
ME	Maine	WY	Wyoming
MD	Maryland	AS	American Samoa
MA	Massachusetts	GU	Guam
MI	Michigan	UM	Midway Island
MN	Minnesota	MP	Northern Mariana Islands
MS	Mississippi	PR	Puerto Rico
MO	Missouri	VI	Virgin Islands
MT	Montana	UM	Wake Islands
NE	Nebraska		
NV	Nevada		
NH	New Hampshire		

1) Radio Service Code:

## Application Purpose (Select only one) ( )

2)	<b>NE</b> - New <b>MD</b> - Modification <b>AM</b> - Amendment	<b>RO</b> - Renewal Only <b>RM</b> - Renewal/Modification <b>CA</b> - Cancellation of License	<b>CO</b> - Consolidate Call Signs <b>WD</b> - Withdrawal of Application <b>DU</b> - Duplicate License	<b>NT</b> - Required Notifications <b>EX</b> - Requests for Extension of Time <b>AU</b> - Administrative Update
3)	If this request is for a <u>D</u> evelopmental License or an <u>S</u> TA (Special Temporary Authorization), enter the appropriate code; otherwise enter <u>N</u> (Not Applicable).			( ) <u>D</u> <u>S</u> <u>N/A</u>
4)	If this request is for an Amendment or Withdrawal, enter the file number of the pending application currently on file with the FCC.			File Number
5)	If this request is for a Modification, Renewal Only, Renewal/Modification, Cancellation of License, Consolidate Call Signs, Duplicate License, or Administrative Update, enter the call sign of the existing FCC license.			Call Sign
6)	If this request is for a New, Amendment, Renewal Only, or Renewal/Modification, enter the requested authorization expiration date (this item is optional).			MM DD
7)	If this request is for a Modification, Renewal/Modification, or Amendment (of a currently pending New or Modification) of a site-specific authorization (other than Part 101 Microwave), will the request increase or expand the composite coverage area, service area, or interference contour as defined in the Commission's rules for your service; or for a Cellular authorization, will the request result in an expansion of the CGSA (after expiration of the 5 year build out period), a de minimus SAB extension into unserved area in an adjacent market, or a change of channel block as defined in Part 22 of the Commission's rules?			( ) <u>Yes</u> <u>No</u>
8a)	Does this filing request a Waiver of the Commission's rules? If 'Yes', attach an exhibit providing rule numbers and explaining circumstances.			( ) <u>Yes</u> <u>No</u>
8b)	If a feeable waiver request is attached, multiply the number of stations times the number of rule sections and enter the result.			
9)	Are attachments being filed with this application?			( ) <u>Yes</u> <u>No</u>

## Applicant Information

10a) Taxpayer Identification Number:		10b) SGIN:	
11) Applicant/Licensee is a(n): ( ) <u>Individual</u> <u>Unincorporated Association</u> <u>Trust</u> <u>Government Entity</u> <u>Joint Venture</u> <u>Corporation</u> <u>Limited Liability Corporation</u> <u>Partnership</u> <u>Consortium</u>			
12) First Name (if individual):	MI:	Last Name:	Suffix:
13) Entity Name (if other than individual):			
14) Name of Real Party in Interest of Applicant:		15) Taxpayer Identification Number:	

**Applicant Information (continued)**

16) Attention To:			
17) P.O. Box:	And /Or	18) Street Address:	
19) City:		20) State:	21) Zip:
22) Telephone Number:		23) FAX:	
24) E-Mail Address:			

**Contact Information (If different from the applicant)**

25) First Name:	MI:	Last Name:	Suffix:
26) Entity Name:			
27) P.O. Box:	And /Or	28) Street Address:	
29) City:		30) State:	31) Zip:
32) Telephone Number:		33) FAX:	
34) E-Mail Address:			

**Regulatory Status**

35) This filing is for authorization to provide or use the following type(s) of radio service offering (enter all that apply):			
( ) <u>C</u> ommon Carrier	( ) <u>N</u> on-Common Carrier	( ) <u>P</u> rivate, internal communications	

**Type of Radio Service**

36) This filing is for authorization to provide the following type(s) of radio service (enter all that apply):			
( ) <u>F</u> ixed	( ) <u>M</u> obile	( ) <u>R</u> adiolocation	( ) <u>S</u> atellite (sound)
37) Interconnected Service?			( ) <u>Y</u> es <u>N</u> o

**Fee Status**

38) Is the applicant exempt from FCC application fees?	( ) <u>Y</u> es <u>N</u> o
39) Is the applicant exempt from FCC regulatory fees?	( ) <u>Y</u> es <u>N</u> o



**Alien Ownership Questions**

40) Is the applicant a foreign government or the representative of any foreign government?	( ) <u>Yes</u> <u>No</u>
41) Is the applicant an alien or the representative of an alien?	( ) <u>Yes</u> <u>No</u>
42) Is the applicant a corporation organized under the laws of any foreign government?	( ) <u>Yes</u> <u>No</u>
43) Is the applicant a corporation of which more than one-fifth of the capital stock is owned of record or voted by aliens or their representatives or by a foreign government or representative thereof or by any corporation organized under the laws of a foreign country?	( ) <u>Yes</u> <u>No</u>
44) Is the applicant directly or indirectly controlled by any other corporation of which more than one-fourth of the capital stock is owned of record or voted by aliens, their representatives, or by a foreign government or representative thereof, or by any corporation organized under the laws of a foreign country? If 'Yes', attach exhibit explaining nature and extent of alien or foreign ownership or control.	( ) <u>Yes</u> <u>No</u>

**Basic Qualification Questions**

45) Has the applicant or any party to this application or amendment had any FCC station authorization, license, or construction permit revoked or had any application for an initial, modification or renewal of FCC station authorization, license, construction permit denied by the Commission? If 'Yes', attach exhibit explaining circumstances.	( ) <u>Yes</u> <u>No</u>
46) Has the applicant or any party to this application or amendment, or any party directly or indirectly controlling the applicant, ever been convicted of a felony by any state or federal court? If 'Yes', attach exhibit explaining circumstances.	( ) <u>Yes</u> <u>No</u>
47) Has any court finally adjudged the applicant or any party directly or indirectly controlling the applicant guilty of unlawfully monopolizing or attempting unlawfully to monopolize radio communication, directly or indirectly, through control of manufacture or sale of radio apparatus, exclusive traffic arrangement, or any other means or unfair methods of competition? If 'Yes', attach exhibit explaining circumstances.	( ) <u>Yes</u> <u>No</u>
48) Is the applicant or any party directly or indirectly controlling the applicant, currently a party in any pending matter referred to in the preceding two items? If 'Yes', attach exhibit explaining circumstances.	( ) <u>Yes</u> <u>No</u>

**49) Race, Ethnicity, and Gender of Applicant/Licensee (Optional):**

<b>Race:</b>	American Indian or Alaska Native:	Asian:	Black or African-American:	Native Hawaiian or Other Pacific Islander:	White:
<b>Ethnicity:</b>	Hispanic or Latino:	Not Hispanic or Latino:			
<b>Gender:</b>	Female:	Male:			

**General Certification Statements**

1) The applicant waives any claim to the use of any particular frequency or of the electromagnetic spectrum as against the regulatory power of the United States because of the previous use of the same, whether by license or otherwise, and requests an authorization in accordance with this application.
2) The applicant certifies that grant of this application would not cause the applicant to be in violation of any pertinent cross-ownership, attribution, or spectrum cap rule.* *If the applicant has sought a waiver of any such rule in connection with this application, it may make this certification subject to the outcome of the waiver request.
3) The applicant certifies that all statements made in this application and in the exhibits, attachments, or documents incorporated by reference are material, are part of this application, and are true, complete, correct, and made in good faith.
4) The applicant certifies that neither the applicant nor any other party to the application is subject to a denial of Federal benefits pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. § 862, because of a conviction for possession or distribution of a controlled substance. See Section 1.2002(b) of the rules, 47 CFR § 1.2002(b), for the definition of "party to the application" as used in this certification.
5) The applicant certifies that it either (1) has a current Form 602 on file with the Commission, (2) is filing an updated Form 602 simultaneously with this application, or (3) is not required to file Form 602 under the Commission's Rules.

**Signature**

50) Typed or Printed Name of Party Authorized to Sign

First Name:	MI:	Last Name:	Suffix:
51) Title:			
Signature:			52) Date:

Failure To Sign This Application May Result In Dismissal Of The Application And Forfeiture Of Any Fees Paid

WILLFUL FALSE STATEMENTS MADE ON THIS FORM OR ANY ATTACHMENTS ARE PUNISHABLE BY FINE AND/OR IMPRISONMENT (U.S. Code, Title 18, Section 1001) AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. Code, Title 47, Section 312(a)(1)), AND/OR FORFEITURE (U.S. Code, Title 47, Section 503).

## **Instructions for Schedule for Changes Affecting Multiple Call Signs or File Numbers Form FCC 601, Schedule A**

Form FCC 601, Schedule A, is a supplementary schedule for use with the FCC Application for Wireless Telecommunications Bureau Radio Service Authorization, FCC 601 Main Form. Use this schedule when requesting changes that affect multiple call signs or file numbers. Schedule A is not used with initial applications. Complete this schedule to submit global changes to items on the FCC 601 Main Form that affect either multiple call signs or multiple file numbers, depending on the Application Purpose entered for Item 2 of that form. Note the following:

*Multiple File Numbers may be affected by these purposes: Amendment or Withdrawal of Application*

*Multiple Call Signs may be affected by these purposes: Renewal Only, Cancellation of License, Consolidate Call Signs, Duplicate License, or Administrative Update*

Each Schedule A or groups of Schedule A filed with the FCC 601 Main Form must use the same purpose, and only one purpose can be specified per submission.

Schedule for Changes Affecting Multiple  
Call Signs or File Numbers

Enter only multiple call signs or only multiple file numbers for the following Form FCC 601 Main Form purposes:

Amendment or Withdrawal of Application (File Numbers)

Renewal Only, Cancellation of License, Consolidate Call Signs, Duplicate License, or Administrative Update (Call Signs)

**Note:** Form FCC 601 Main Form allows the selection of only one purpose per submission.

Each Schedule A or groups of Schedule A filed with the FCC 601 Main Form must use the same purpose.

Call Sign or File Number	Call Sign or File Number	Call Sign or File Number	Call Sign or File Number

## Information and Instructions

### Schedule for Geographically Licensed Services

Form FCC 601, Schedule B, is a supplementary schedule for use with the FCC Application for Wireless Telecommunications Bureau Radio Service Authorization, FCC 601 Main Form. This schedule is used to apply for the required license authorization when the applicant has been determined to be the winning bidder at the close of an FCC auction. The FCC 601 Main Form must be filed in conjunction with this schedule.

## Schedule B Instructions

### ►Market/Channel Block

Items 1 through 4 are to be completed with the market or markets that are licensed on a geographic licensing area or market basis (e.g., Personal Communications Service) and have been won through an auction (in this case, multiple sites may be completed for each Schedule B).

**Item 1** This item identifies the market(s) to which the filing pertains. Market designators are listed in FCC Public Notices or in the FCC rules.

**Item 2** This item, in addition to the market designator, identifies the market to which the filing pertains. The market names are listed in FCC Public Notices or in the FCC rules.

**Item 3** This item identifies the spectrum, assigned in channel blocks, for the market area listed in Item 1.

**Item 4** Complete this item only if the market area listed in Item 1 has been subdivided (in a partition and/or disaggregation).

**Note:** In some circumstances geographic area licensees must apply for a site-specific authorization when either (a) a site requires international coordination, or (b) a site will have an environmental impact.

#### (a) Sites requiring international coordination:

International coordination is generally needed when a site is located North of Line A or East of Line C. Appendix I in FCC Form 601 Main Form instructions contains a list of counties, by state, having areas North of Line A. In these instances, licensees must file an application for modification using FCC Form 601 Main Form and Schedule I for microwave radio services or Schedule D and the appropriate technical data schedule for all other radio services.

#### (b) Sites having an environmental impact:

Sites having a significant environmental effect are defined in Section 1.1307 of the Commission's rules. In these instances, licensees must file an application for modification using FCC Form 601 Main Form and Schedule I for microwave radio services or Schedule D for all other radio services. Examples of facilities that may have a significant effect on the environment include:

An antenna structure located in a residential area (as defined by applicable zoning laws) that will utilize high intensity aviation obstruction lighting

A facility located in an officially designated wilderness area, wildlife preserve, or floodplain

A facility that affects a site significant in American history

A facility whose construction involves extensive changes in surface features

Facilities, operations, or transmitters that would cause human exposure to levels of radio frequency radiation in excess of the limits as detailed in § 1.1310 and 2.109 of the Commission's rules.

### ►Certification Statements

By signing the FCC 601 Main Form, the applicant certifies that the statements listed in this section are true, complete, correct, and made in good faith.

**Market/Channel Block**

1) Market Designator	2) Market Name	3) Channel Block	4) Sub-Market Designator

**Certifications**

**For Applicants Claiming Eligibility as an Entrepreneur Under the General Rule**

Applicant certifies that they are eligible to obtain the licenses for which they apply.

**For Applicants Claiming Eligibility as a Publicly Traded Corporation**

Applicant certifies that they are eligible to obtain the licenses for which they apply and that they comply with the definition of a Publicly Traded Corporation, as set out in the applicable FCC rules.

**For Applicants Claiming Eligibility using a Control Group Structure**

Applicant certifies that they are eligible to obtain the licenses for which they apply.

Applicant certifies that the applicant's sole control group member is a pre-existing entity, if applicable.

**For Applicants Claiming Eligibility as a Very Small Business, Very Small Business Consortium, Small Business, or as a Small Business Consortium**

Applicant certifies that they are eligible to obtain the licenses for which they apply.

Applicant certifies that the applicant's sole control group member is a pre-existing entity, if applicable.

**For Applicants Claiming Eligibility as a Rural Telephone Company**

Applicant certifies that they meet the definition of a Rural Telephone Company as set out in the applicable FCC rules, and must disclose all parties to agreement(s) to partition licenses won in this auction. See applicable FCC rules.

## Information and Instructions

# Wireless Telecommunications Bureau Schedule for Fixed Station Locations and Antenna Structures

Form FCC 601, Schedule D, is a supplementary schedule for use with the FCC Application for Wireless Telecommunications Bureau Radio Service Authorization, FCC 601 Main Form. This schedule is used to supply technical information for fixed transmit station locations, including antenna structures. It is also used by geographic licensees (all radio services, except microwave) to apply for a site-specific authorization to fulfill international coordination requirements or environmental assessment requirements. File as many schedules as necessary to describe all fixed station locations, including antenna structures, in your application. The FCC 601 Main Form must be filed in conjunction with this schedule. This schedule is used in conjunction with the following technical data schedules:

**Note:** When required, antenna structures must be registered using FCC Form 854. The use of this form to supply antenna structure information does not replace the requirement to register antenna structures on the FCC Form 854. For more information, see our web site at <http://www.fcc.gov/wtb/antenna>, call the National Call Center at 1-888-CALL-FCC (225-5322), or e-mail questions to [FCCITD@fcc.gov](mailto:FCCITD@fcc.gov).

FCC 601, Schedule F - Technical Data Schedule for the Cellular and Air-ground (Commercial Aviation) Radiotelephone Services (Part 22)

FCC 601, Schedule G - Technical Data Schedule for the Maritime and Aviation Services (Parts 80 and 87)

FCC 601, Schedule H - Technical Data Schedule for the Private Land Mobile and Broadcast Auxiliary Land Mobile Radio Services (Parts 90 and 74)

FCC 601, Schedule J - Technical Data Schedule for the Paging, Rural, Air-ground (General Aviation), and Offshore Radiotelephone Services (Part 22)

It is recommended that Schedule D be completed prior to completing any required technical data schedules.

If you are applying for authorization of a mobile station operating around a fixed location, you must also file FCC 601, Schedule E, Schedule for Mobile, Temporary Fixed, and 6.1 Meter Control Station Locations. It is also recommended that you complete Schedule D prior to completing Schedule E.

**Note:** Some services have specific requirements and/or restrictions for some of the items on this schedule. Please refer to the instructions of the appropriate technical data schedule for service specific response requirements and restrictions.

## Schedule D Instructions

This schedule must be completed only when a fixed station location is to be added, modified, or deleted. Schedule D contains 2 sections, each of which contains Items 1 through 17. Each section identifies one fixed station location. Use as many copies of Schedule D as necessary to provide information for all fixed stations.

If you are adding a new fixed station location, complete all required items in a section for each fixed station location being added.

If you are modifying a fixed station location, in addition to Items 1, 2, and 4 (provide the seven digit antenna structure registration number), complete only the items that have changed for each fixed station location. If the modification is to delete existing data, enter CLR (clear) in the appropriate field (manual filed forms only). If the modification involves technical data filed on one of accompanying FCC Technical Data Service Schedules F, G, H, or J, or involves the relocation of a fixed station, then Items 16 and 17 (if required) must also be completed.

If you are deleting a fixed station location, only Items 1 and 2 are required. If a fixed station location is deleted, the frequency, emission, and all related technical data that is linked to the fixed station location will automatically be deleted and will no longer be part of your authorization. Therefore, it is not necessary to complete the complementary technical data service schedule to delete frequency and emissions when a fixed station location is deleted using this schedule.

Fixed station locations that are currently licensed under this call sign by the FCC will continue to be shown on the Authorization as is, unless a specific action is requested.

**IMPORTANT ANTENNA STRUCTURE REGISTRATION INFORMATION:** The Commission will evaluate your application based on the Antenna Structure Registration number you provide (if required). If you mistype your Antenna Structure Registration Number, or provide location data (latitude, longitude, elevation, structure heights) that is inconsistent with the data found in the Commission's Antenna Structure Registration database, your application will be dismissed.

**Item 1** This item must be completed. It indicates the action the applicant wants the FCC to take on the specified location. Enter 'A' for Add, 'M' for Modify, or 'D' for Delete.

**Item 2** This item must be completed. If the fixed station location has been previously licensed under this call sign by the FCC, enter its FCC-assigned location number (located on the Authorization). For a new fixed station location, assign a temporary code to represent the fixed station location. The assigned code should begin with F to indicate it is a fixed location and end with a number to uniquely identify it (e.g., F1, F2, F3, etc.). The FCC will assign an official number to the new station, which will appear on the Authorization.

If a mobile station is operating around this fixed station location, also complete and attach Schedule E (Schedule for Mobile, Temporary Fixed, and 6.1 Meter Control Station Locations), entering the fixed location number into Schedule E Item 3.

**Item 3** This item only requires completion if the response to Item 1 is 'A' or 'M'. If Commission's rules recognize Primary and Secondary protection in conjunction with other fixed site facilities in the service, enter 'P' if you wish primary protection for the site or 'S' if you wish no protection for the site. If Commission's rules do not recognize Primary and Secondary protection in conjunction with other fixed site facilities in the service, Item 3 can be left blank. Refer to the applicable Commission's rules for your service for more information on Primary and Secondary protection.

**Item 4** This item is required if the action requested in Item 1 is 'A' or 'M'. If antenna structure registration is required, enter the seven digit FCC Antenna Structure Registration Number (shown on the structure's registration, FCC Form 854R). Otherwise, enter N/A (FAA notification is not required).

**Note:** Effective 7/1/96 the Commission requires owners to register certain structures. When required, antenna structures must be registered using FCC Form 854. The use of this FCC Form 601 to supply antenna structure information does not replace the requirement to register antenna structures on the FCC Form 854. For more information, see our web site at <http://www.fcc.gov/wtb/antenna>, call the National Call Center at 1-888-CALL-FCC (225-5322), or e-mail questions to [FCCITD@fcc.gov](mailto:FCCITD@fcc.gov).

**Note:** If, in accordance with 47 CFR § 17.14, Antenna Structure Registration is not required because the structure is shielded by existing structures or because it is fixed by its functional purpose, submit supporting documentation as an attachment to your application.

**Items 5 and 6** Respond to this item only if you indicated N/A in Item 4. Enter the geographic coordinates of the location, referenced to the North American Datum of 1983 (NAD83). This information can be determined in many ways, including a GPS receiver, a 7.5 minute topographical quadrangle map of the area, or you may consult the city or county surveyor in your area. Topographical maps may be purchased from the U.S. Geological Survey, Washington, DC 20242 or from its office in Denver, Colorado 80225.

**Note:** Location coordinates (latitude and longitude) for sites in the Continental United States, Puerto Rico, the U.S. Virgin Islands, Alaska, Hawaii, American Samoa, and Guam must be referenced to the North American Datum of 1983 (NAD83). Coordinates for sites in the Northern Mariana Islands, Wake Island, and Midway Island should be referenced to the applicable local datums. If the source from which you obtain the coordinates still utilizes an older datum (i.e., NAD27, PRD40) you must convert to NAD83. Conversion routines are available through the internet at <http://www.fcc.gov/wtb/uls/nadcon.html>.

Enter the latitude using the format DD-MM-SS, where the degrees (DD) term can have a value in the range of 0 to 90, minutes (MM) can range from 0 to 59, and seconds (SS) can range from 0 to 59.9. If desired, seconds may be expressed to the nearest tenth of a second (in which case, use the format DD-MM-SS.S). In the lower right corner, specify the direction as either N for North or S for South.

Enter the longitude using the format DDD-MM-SS, where the degrees (DDD) term can have a value in the range of 0 to 180, minutes (MM) can range from 0 to 59, and seconds (SS) can range from 0 to 59.9. If desired, seconds may be expressed to the nearest tenth of a second (in which case, use the format DDD-MM-SS.S). In the lower right corner, specify the direction as either E for East or W for West.



**Items 7-10** All applicants must supply a County in item 9 except when: (a) the city entered in Item 8 is an independent city that is not affiliated with a county (i.e., Baltimore, MD), or (b) the state entered in Item 10 does not have counties (i.e., Puerto Rico, Virgin Islands). If you indicated 'N/A' in Item 4, respond to items 7 through 10. These items identify the location by its address or, if there is no address, by a brief specific geographic description of the location, such as distance and direction from known landmarks, for example:

- 7) (Street) '5 km S of
- 8) (City) 'Gettysburg'
- 9) (County) 'Adams'
- 10) (State) 'PA'

If the nearest city, county and state are located in a bordering county and/or state, enter a complete description of the location in item 7 as shown in the example. Complete item 8 if a city, town or village within the transmitter's county is nearby and complete items 9 and 10 with the county and state in which the coordinates are actually located, for example:

- 7) Summit Mtn near Palo Verde, Imperial County, CA
- 8)
- 9) La Paz
- 10) Arizona

P.O. Box numbers or geographic coordinates are not acceptable for Item 7. Refer to FCC 601 Main Form Instructions, Appendix II, for a list of valid state, jurisdiction, and area abbreviations.

**Item 11** Respond to this item only if you indicated N/A in Item 4. Enter the elevation above mean sea level (AMSL) of the ground at the antenna location. Enter this item in meters, rounded to the nearest tenth. Refer to letter 'a' in the antenna structure figure examples at the end of the Form FCC 601 Schedule D instructions. This information can be determined in many ways, including a GPS receiver, 7.5 minute topographical quadrangle map of the area, or you may consult the city or county surveyor in your area. Topographical maps may be purchased from the U.S. Geological Survey, Washington, DC 20242 or from its office in Denver, Colorado 80225.

**Item 12** Respond to this item only if you indicated 'N/A' in Item 4. Enter the code for the type of structure on which the antenna is or will be mounted from the following valid structure types:

<u>Code</u>	<u>Definition</u>
B	Building with a side mounted antenna
BANT	Building with Antenna on Top
BMAST	Building with Mast/Antenna on Top
BPIPE	Building with Pipe/Antenna on Top
BPOLE	Building with Pole/Antenna on Top
BRIDG	Bridge
BTWR	Building with Tower/Antenna on Top
MAST	Self-Support Structure
NNTANN*	Antenna Tower Array
NTOWER**	Multiple Structures
PIPE	Any Type of Pipe
POLE	Any Type of Pole, used only to mount an antenna
RIG	Oil or Other Type of Rig
SIGN	Any Type of Sign or Billboard
SILO	Any Type of Silo
STACK	Smoke Stack
TANK	Any Type of Tank (Water, Gas, etc.)
TOWER	A Free Standing Guyed Structure Used for Communications Purposes
TREE	When Used as a Support for an Antenna
UPOLE	Utility Pole/Tower Used to Provide Service (Electric, Telephone, etc.)

\* Valid Tower Arrays. Code definition: The first NN indicates the number of towers in an array. The second NN is optional and indicates the position of that tower in the array (e.g., 3TA2 would identify the second tower in a three tower array).

\*\* Valid Multiple Structures. Code Definition: The N indicates the number of structures where multiple antenna structures are present in a multiple structure (Ex.: 2TOWER, 3TANK, 6BANT, 7BMAST).

**Item 13** Applicable to Aviation Services (Part 87) only. Enter the three or four character code assigned to the airport (if applicable).

**Item 14** Respond to this item only if you indicated N/A in Item 4. Enter the height above ground level to the highest point of the **supporting structure only**. Enter this item in meters, rounded to the nearest tenth. For example, if the antenna structure consists of a building/tower combination, include any elevator shaft, flag pole, or penthouse in the **overall** support structure height, but not the antenna, tower, pole, or mast. If the antenna structure is a tower only, include the height of the tower but not the antenna. Refer to letter 'b' in the antenna structure figure examples at the end of the Form FCC 601 Schedule D instructions.

**Item 15** Respond to this item only if you indicated N/A in Item 4. Enter the overall height above ground level of the entire antenna structure to the highest point, including any appurtenances. Enter this item in meters, rounded to the nearest tenth. You must include antennas, dishes, obstruction lighting, etc. Refer to letter 'c' in the antenna structure figure examples at the end of the Form FCC 601 Schedule D instructions.

**Item 16** This item is required for compliance with the National Environmental Policy Act of 1969, as amended, 42 U.S.C. 4321-4335. See also Part 1, Subpart I of the FCC rules (47 CFR 1.1301 - 1.1319). This item must be answered, either 'Y' or 'N'.

Enter 'Y' if an FCC grant of this application will have a significant environmental effect. Section 1.1307 of the FCC rules lists categories of environmental effects for which applicants must file an environment assessment. Otherwise enter 'N'. Examples of facilities that may have a significant effect on the environment include:

An antenna structure located in a residential area (as defined by applicable zoning laws) that will utilize high intensity aviation obstruction lighting

A facility located in an officially designated wilderness area, wildlife preserve, or floodplain

A facility that affects a site significant in American history

A facility whose construction involves extensive changes in surface features

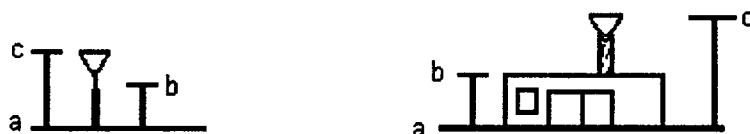
Facilities, operations, or transmitters that would cause human exposure to levels of radio frequency radiation in excess of the limits as detailed in § 1.1310 and 2.109 of the Commission's rules.

**Item 17** Applicants for stations located in one of the quiet zones listed below must notify the proper authority and indicate the date such notification was sent in Item 17.

1. National Radio Astronomy Observatory, Green Bank, Pocahontas County, West Virginia. The quiet zone is located within Virginia, West Virginia, and Garrett County, Maryland and bounded by 39 degrees 15' N on the north, 78 degrees 30' W on the east, 37 degrees 30' N on the south, and 80 degrees 30' W on the west. Contact the National Radio Astronomy Observatory, P.O. Box 2, Green Bank, West Virginia 24944.

2. Arecibo Observatory, Puerto Rico. The quiet zone consists of the islands of Puerto Rico, Desecheo, Mona, Vieques, and Culebra. Contact the Interference Office, Arecibo Observatory, Post Office Box 995, Arecibo, Puerto Rico 00613. Applicants for stations located in this quiet zone must indicate, in its application, the date such notification was sent.

#### Antenna Structure Figure Examples:



1) Action Requested: (    ) <u>Add</u> <u>Mod</u> <u>Del</u>		2) Fixed Location Number:		3) Site Status:	
4) FCC Antenna Structure Registration # or N/A (FAA Notification not Required)					
5) Latitude (DD-MM-SS.S): <div style="text-align: right;">NAD83 (    ) <u>N</u> or <u>S</u></div>			6) Longitude (DDD-MM-SS.S): <div style="text-align: right;">NAD83 (    ) <u>E</u> or <u>W</u></div>		
7) Street Address, Name of Landing Area, or Other Location Description:					
8) City:		9) County:		10) State:	
11) Elevation of Site AMSL (meters) ( 'a' in antenna structure example):		12) Support Structure Type:		13) Airport Identifier:	
14) Overall Ht AGL Without Appurtenances (meters) ( 'b' in antenna structure example):			15) Overall Ht AGL With Appurtenances (meters) ( 'c' in antenna structure example):		
16) Would a Commission grant of Authorization for this location be an action which may have a significant environmental effect? See Section 1.1307 of 47 CFR. If 'Yes', submit an environmental assessment as required by 47 CFR, Sections 1.1308 and 1.1311. (    ) <u>Yes</u> <u>No</u>					
17) If the proposed site is located in one of the quiet zones listed in Item 17 of the Instructions, provide the date the proper authority was notified:					

1) Action Requested: (    ) <u>Add</u> <u>Mod</u> <u>Del</u>		2) Fixed Location Number:		3) Site Status:	
4) FCC Antenna Structure Registration # or N/A (FAA Notification not Required)					
5) Latitude (DD-MM-SS.S): <div style="text-align: right;">NAD83 (    ) <u>N</u> or <u>S</u></div>			6) Longitude (DDD-MM-SS.S): <div style="text-align: right;">NAD83 (    ) <u>E</u> or <u>W</u></div>		
7) Street Address, Name of Landing Area, or Other Location Description:					
8) City:		9) County:		10) State:	
11) Elevation of Site AMSL (meters) ( 'a' in antenna structure example):		12) Support Structure Type:		13) Airport Identifier:	
14) Overall Ht AGL Without Appurtenances (meters) ( 'b' in antenna structure example):			15) Overall Ht AGL With Appurtenances (meters) ( 'c' in antenna structure example):		
16) Would a Commission grant of Authorization for this location be an action which may have a significant environmental effect? See Section 1.1307 of 47 CFR. If 'Yes', submit an environmental assessment as required by 47 CFR, Sections 1.1308 and 1.1311. (    ) <u>Yes</u> <u>No</u>					
17) If the proposed site is located in one of the quiet zones listed in Item 17 of the Instructions, provide the date the proper authority was notified:					

**Information and Instructions**

## **Wireless Telecommunications Bureau Schedule for Mobile, Temporary Fixed, and 6.1 Meter Control Station Locations**

Form FCC 601, Schedule E, is a supplementary schedule for use with the FCC Application for Wireless Telecommunications Bureau Radio Service Authorization, FCC 601 Main Form. This schedule is used to supply technical information for mobile transmit locations, temporary fixed stations, itinerant stations, and 6.1 meter control stations. File as many schedules as needed to describe all mobile transmit locations, temporary fixed stations, itinerant stations, and 6.1 meter control stations included in your application. The FCC 601 Main Form must be filed in conjunction with this schedule. This schedule is used in conjunction with the following technical data schedules:

FCC 601, Schedule G - Technical Data Schedule for the Maritime and Aviation Services (Parts 80 and 87)

FCC 601, Schedule H - Technical Data Schedule for the Private Land Mobile and Broadcast Auxiliary Land Mobile Radio Services (Parts 90 and 74)

FCC 601, Schedule J - Technical Data Schedule for the Paging, Rural, Air-ground (General Aviation), and Offshore Radiotelephone Services (Part 22)

It is recommended that Schedule E be completed prior to completing any required technical data schedules.

If you are applying for authorization of a mobile station operating around a fixed location, you must also file FCC 601, Schedule D, Schedule for Fixed Station Locations and Antenna Structures. It is also recommended that you complete Schedule D prior to completing Schedule E.

**Note:** Some services have specific requirements and/or restrictions for some of the items on this schedule. Please refer to the instructions of the appropriate technical data schedule for service specific response requirements and restrictions.

### **Schedule E Instructions**

This schedule must be completed only when a mobile transmit station, temporary fixed station, itinerant station, or 6.1 meter control station is to be added, modified, or deleted. Schedule E contains 2 sections, each of which contains Items 1 through 18. Each section identifies one mobile transmit location, temporary fixed station, itinerant station, or 6.1 meter control station. File as many copies of Schedule E as necessary to describe all mobile transmit locations, temporary fixed stations, itinerant stations, or 6.1 meter control stations.

If you are adding a new mobile station, temporary fixed station, itinerant station, or 6.1 meter control station, complete all items in a section for each station to be added. If the modification involves technical data filed on one of accompanying FCC Technical Data Service Schedules G, H, or J, or involves the relocation of a control station, then Items 17 and 18 (if required) must also be completed.

If you are modifying a station, in addition to Items 1, and 2, complete only the items that have changed for each station. . If the modification is to delete existing data, enter CLR (clear) in the appropriate field (manual filed forms only).

If you are deleting a station, only Items 1 and 2 are required. If a station is deleted, the frequency and emission data that is linked to the station will automatically be deleted and will no longer be part of your authorization. Therefore, it is not necessary to complete the complementary technical data service schedule to delete frequency and emissions when a station is deleted using this schedule.

Mobile transmit locations, temporary fixed stations, itinerant stations, and 6.1 meter control stations that are currently licensed under this call sign by the FCC will continue to be shown on the authorization as is, unless a specific action is requested.

**Item 1** This item must be completed. It indicates the action the applicant wants the FCC to take on the specified location. Enter 'A' for Add, 'M' for Modify, or 'D' for Delete.

**Item 2** If the location has been previously licensed under this call sign by the FCC, enter the FCC-assigned location number (located on the Authorization). For a new mobile transmit station, temporary fixed station, itinerant station, or 6.1 meter control station, assign a temporary code to represent the location. The assigned code should begin with M to indicate it is a mobile location and end with a number to uniquely identify it (e.g., M1, M2, M3, etc.). The FCC will assign an official number to the new station, which will appear on the Authorization.

**Item 3** Respond to this item only if the mobile station for which you are applying is operating around a fixed location entered on FCC 601, Schedule D. Enter the fixed location number from Item 2 of Schedule D into Item 3 of this schedule. Also enter 'A' as the Area of Operation Code in Item 4 of this schedule.

**Item 4** Enter the appropriate area of operation code using the table below. Additional Schedule E fields must be completed according to the area of operation code chosen. Refer to the table to determine which additional fields are required on Schedule E for the chosen area of operation code. Only one area of operation code may be selected for each mobile location.

**Note:** If area operation will cover multiple counties, use area of operation code 'O' and specify all applicable counties in Item 15.

**Area of Operation Codes and Required Data Values**

Code Description	Additional Schedule I Data Elements Required for each Area of Operation Code	Item Numbers
A KMRA* around a Fixed location listed on <b>Schedule D</b> (option not available to Maritime or Aviation Services)	Temporary Fixed or Mobile Radius, Fixed Location Number	5, 3
P KMRA* around a Centerpoint	Temporary Fixed or Mobile Radius, Latitude, Longitude, City*, County**, State**	5, 7, 8, 11, 12, 13
R Rectangular Area of Operation	Latitude, Longitude, Maximum Latitude, Maximum Longitude	7, 8, 9, 10
N Nationwide including Hawaii Alaska & US Territories		
U Continental US		
C County Wide Area of Operation	County, State	12, 13
S Statewide Area of Operation	State	13
O Other - Narrative	Description	15
X Land Mobile Control Station Meeting the 6.1 Meter Rule	State	13

\*Kilometers Radius

\*\* Complete as applicable - refer to instructions for applicability.

**Item 5** Complete this item for temporary or mobile stations where the area of operation will be defined as a radius around a specified set of coordinates. If 'A', or 'P' was entered for Item 4, enter the radius in this item. Enter in kilometers, rounded to the nearest tenth.

**Item 6** Used for Aviation services only. Enter the three or four character code assigned to the airport (if applicable).

**Items 7 and 8** If 'P' was entered in Item 4, enter the geographic coordinates (latitude and longitude) of the location. If 'R' was entered in Item 4, enter the minimum geographic coordinates of the rectangular area or box.

Coordinates entered must be referenced to the North American Datum of 1983 (NAD83). This information can be determined in many ways, including a GPS receiver, a 7.5 minute topographical quadrangle map of the area, or you may consult the city or county surveyor in your area. Topographical maps may be purchased from the U.S. Geological Survey, Washington, DC 20242 or from its office in Denver, Colorado 80225.

**Note:** Location coordinates (latitude and longitude) for sites in the Continental United States, Puerto Rico, the U.S. Virgin Islands, Alaska, Hawaii, American Samoa, and Guam must be referenced to the North American Datum of 1983 (NAD83). Coordinates for sites in the Northern Mariana Islands, Wake Island, and Midway Island should be referenced to the applicable local datums. If the source from which you obtain the coordinates still utilizes an older datum (i.e., NAD27, PRD40) you must convert to NAD83. Conversion routines are available through the internet at <http://www.fcc.gov/wtb/uls/nadcon.html>.

Enter the latitude using the format DD-MM-SS, where the degrees (DD) term can have a value in the range of 0 to 90, minutes (MM) can range from 0 to 59, and seconds (SS) can range from 0 to 59.9. If desired, seconds may be expressed to the nearest tenth of a second (in which case, use the format DD-MM-SS.S). In the lower right corner, specify the direction as either 'N' for North or 'S' for South.

Enter the longitude using the format DDD-MM-SS, where the degrees (DDD) term can have a value in the range of 0 to 180, minutes (MM) can range from 0 to 59, and seconds (SS) can range from 0 to 59.9. If desired, seconds may be expressed to the nearest tenth of a second (in which case, use the format DDD-MM-SS.S). In the lower right corner, specify the direction as either 'E' for East or 'W' for West.

**Items 9 and 10** These items are to be completed for operations that are defined by a rectangular area or box coordinates. If code 'R' was entered in Item 4, enter the maximum geographic coordinates (latitude and longitude) in Items 9 and 10.

Coordinates entered must be referenced to the North American Datum of 1983 (NAD83). This information can be determined in many ways, including a GPS receiver, a 7.5 minute topographical quadrangle map of the area, or you may consult the city or county surveyor in your area. Topographical maps may be purchased from the U.S. Geological Survey, Washington, DC 20242 or from its office in Denver, Colorado 80225.

**Note:** Location coordinates (latitude and longitude) for sites in the Continental United States, Puerto Rico, the U.S. Virgin Islands, Alaska, Hawaii, American Samoa, and Guam must be referenced to the North American Datum of 1983 (NAD83). Coordinates for sites in the Northern Mariana Islands, Wake Island, and Midway Island should be referenced to the applicable local datums. If the source from which you obtain the coordinates still utilizes an older datum (i.e., NAD27, PRD40) you must convert to NAD83. Conversion routines are available through the internet at <http://www.fcc.gov/wtb/uls/nadcon.html>.

Enter the latitude using the format DD-MM-SS, where the degrees (DD) term can have a value in the range of 0 to 90, minutes (MM) can range from 0 to 59, and seconds (SS) can range from 0 to 59.9. If desired, seconds may be expressed to the nearest tenth of a second (in which case, use the format DD-MM-SS.S). In the lower right corner, specify the direction as either 'N' for North or 'S' for South.

Enter the longitude using the format DDD-MM-SS, where the degrees (DDD) term can have a value in the range of 0 to 180, minutes (MM) can range from 0 to 59, and seconds (SS) can range from 0 to 59.9. If desired, seconds may be expressed to the nearest tenth of a second (in which case, use the format DDD-MM-SS.S). In the lower right corner, specify the direction as either 'E' for East or 'W' for West.

**Items 11** If 'P' was entered in Item 4, enter the city or town name of the location in this item. This item is required only if Item 12 is blank.

**Items 12** If 'P' or 'C' was entered in Item 4, enter the county of the location in this item. This item is always required for area of operation code 'C'. This item is also required for area of operation code 'P' except when: (a) the city entered in Item 11 is an independent city that is not affiliated with a county (i.e., Baltimore, MD), or (b) the state entered in Item 13 does not have counties (i.e., Puerto Rico, Virgin Islands).

**Items 13** If 'P', 'C', 'S', or 'X' was entered in Item 4, enter the state of the location in this item (if 'X' was entered in Item 4, enter the state of the primary control station). Refer to FCC 601 Main Form Instructions, Appendix II, for a list of valid state, jurisdiction, and area abbreviations.

**Item 14** This item helps the FCC to determine if it will initiate coordination procedures with the Government of Canada. If any part of the mobile location is North of Line A, enter 'Y' in the appropriate field. If any part of the mobile location is East of Line C (applies to stations located in Alaska only), enter 'Y' in the appropriate field. In the event the applicant needs to submit additional information regarding coordination of a channel assignment with the Government of Canada, this should be attached as an exhibit which references Schedule E Item 14. If 'N' is entered for both questions, the FCC will not initiate coordination procedures with the Government of Canada and your area of operation will be excluded from these border areas. Refer to Section 1.955 of the Commission's rules for a detailed explanation of Lines A and C. Appendix I in FCC Form 601 Main Form Instructions contains a list of counties, by state, having areas North of Line A.

**Item 15** If the response to Item 4 was 'O', enter a description of the area of operation. P.O. Box numbers or geographic coordinates are not acceptable for Item 15. The use of Other-Narrative should only be used if the area of operation cannot be described by using one of the other codes. Area of operation provided as Other-Narrative may delay processing of the application.

**Item 16** This item does not apply to Land Mobile (public or private) or Broadcast Auxiliary Land Mobile Radio Services. Enter the number of units for each type listed: Hand Held, Mobile, Temporary Fixed, Aircraft, and Itinerant. For paging systems (Part 22), provide the number of subscribers (in mobiles) along with the number of temporary fixed transmitters.

**Item 17** This item is required for compliance with the National Environmental Policy Act of 1969, as amended, 42 U.S.C. 4321-4335. See also Part 1, Subpart I of the FCC rules (47 CFR 1.1301 - 1.1319). This item must be answered, either 'Y' or 'N'.

Enter 'Y' if an FCC grant of this application will have a significant environmental effect. Section 1.1307 of the FCC rules lists categories of environmental effects for which applicants must file an environment assessment. Otherwise enter 'N'. Examples of facilities that may have a significant effect on the environment include:

An antenna structure located in a residential area (as defined by applicable zoning laws) that will utilize high intensity aviation obstruction lighting

A facility located in an officially designated wilderness area, wildlife preserve, or floodplain

A facility that affects a site significant in American history

A facility whose construction involves extensive changes in surface features

Facilities, operations, or transmitters that would cause human exposure to levels of radio frequency radiation in excess of the limits as detailed in § 1.1310 and 2.109 of the Commission's rules.

Item 18 This item should only be completed for control stations. Applicants for control stations located in one of the quiet zones listed below, must notify the proper authority.

1. National Radio Astronomy Observatory, Green Bank, Pocahontas County, West Virginia. The quiet zone is located within Virginia, West Virginia, and Garrett County, Maryland and bounded by 39 degrees 15' N on the north, 78 degrees 30' W on the east, 37 degrees 30' N on the south, and 80 degrees 30' W on the west. Contact the National Radio Astronomy Observatory, P.O. Box 2, Green Bank, West Virginia 24944.

2. Arecibo Observatory, Puerto Rico. The quiet zone consists of the islands of Puerto Rico, Desecheo, Mona, Vieques, and Culebra. Contact the Interference Office, Arecibo Observatory, Post Office Box 995, Arecibo, Puerto Rico 00613. Applicants for stations located in this quiet zone must indicate, in its application, the date such notification was sent.

1) Action Requested: (    ) <u>Add</u> <u>Mod</u> <u>Del</u>		2) Mobile Location Number:		3) Fixed Location Number:	
4) Area of Operation Code:		5) Temporary Fixed or Mobile Radius (km):		6) Airport Identifier:	
7) Latitude (DD-MM-SS.S): NAD83 (    ) <u>N</u> or <u>S</u>		8) Longitude (DDD-MM-SS.S): NAD83 (    ) <u>E</u> or <u>W</u>			
9) Maximum Latitude (DD-MM-SS.S): Use for rectangle only NAD83 (    ) <u>N</u> or <u>S</u>		10) Maximum Longitude (DDD-MM-SS.S): Use for rectangle only NAD83 (    ) <u>E</u> or <u>W</u>			
11) City:		12) County:		13) State:	
14) Is any part of your operation North of Line A? (    ) <u>Yes</u> <u>No</u> Is any part of your operation East of Line C? (    ) <u>Yes</u> <u>No</u>					
15) Description: (only for Area of Operation Code 'O')					
16) Number of Units:    ___ Hand Held    ___ Mobile    ___ Temporary Fixed    ___ Aircraft    ___ Itinerant					
17) Would a Commission grant of Authorization for this location be an action which may have a significant environmental effect? See Section 1.1307 of 47 CFR. If 'Yes', submit an environmental assessment as required by 47 CFR, Sections 1.1308 and 1.1311.    (    ) <u>Yes</u> <u>No</u>					
18) If the proposed site is located in one of the quiet zones listed in Item 18 of the Instructions, provide the date the proper authority was notified:					

1) Action Requested: (    ) <u>Add</u> <u>Mod</u> <u>Del</u>		2) Mobile Location Number:		3) Fixed Location Number:	
4) Area of Operation Code:		5) Temporary Fixed or Mobile Radius (km):		6) Airport Identifier:	
7) Latitude (DD-MM-SS.S): NAD83 (    ) <u>N</u> or <u>S</u>		8) Longitude (DDD-MM-SS.S): NAD83 (    ) <u>E</u> or <u>W</u>			
9) Maximum Latitude (DD-MM-SS.S): Use for rectangle only NAD83 (    ) <u>N</u> or <u>S</u>		10) Maximum Longitude (DDD-MM-SS.S): Use for rectangle only NAD83 (    ) <u>E</u> or <u>W</u>			
11) City:		12) County:		13) State:	
14) Is any part of your operation North of Line A? (    ) <u>Yes</u> <u>No</u> Is any part of your operation East of Line C? (    ) <u>Yes</u> <u>No</u>					
15) Description: (only for Area of Operation Code 'O')					
16) Number of Units:    ___ Hand Held    ___ Mobile    ___ Temporary Fixed    ___ Aircraft    ___ Itinerant					
17) Would a Commission grant of Authorization for this location be an action which may have a significant environmental effect? See Section 1.1307 of 47 CFR. If 'Yes', submit an environmental assessment as required by 47 CFR, Sections 1.1308 and 1.1311.    (    ) <u>Yes</u> <u>No</u>					
18) If the proposed site is located in one of the quiet zones listed in Item 18 of the Instructions, provide the date the proper authority was notified:					



## Information and Instructions

# Technical Data Schedule for the Cellular and Air-ground (Commercial Aviation) Radiotelephone Services (Part 22)

Form FCC 601, Schedule F, is a supplementary schedule for use with the FCC Application for Wireless Telecommunications Bureau Radio Service Authorization, FCC 601 Main Form. This schedule is used to apply for an authorization to operate a radio station, amend a pending application, or modify an existing license in the Cellular Radiotelephone and Commercial Air-ground Radiotelephone Services. Additionally, this schedule is used by auction winners that must file site-specific technical data for international coordination or for an environmental assessment of a particular site. The FCC 601 Main Form must be filed in conjunction with this schedule.

You must file technical information for each location and antenna structure using FCC 601, Schedule D, Schedule for Fixed Station Locations and Antenna Structures. It is recommended that you complete Schedule D prior to completing Schedule F.

## Schedule F Instructions

### ► Cellular Unserved Area Information

**Item 1** If this is a New or Modification application for Cellular Radiotelephone Services, indicate whether the application is for a Phase I Cellular unserved area or a Phase II Cellular unserved area, as defined by 47 CFR Section 22.949. If the application is for a Phase I Cellular unserved area, complete Items 2 through 5 as applicable (one row only). If the application is for a Phase II Cellular unserved area, complete Items 2 through 5, as many rows as applicable. If this application is for a new license won in an FCC auction, do not file FCC 601 Schedule F. Instead, file Form FCC 601 Schedule B along with the FCC 601 Main Form.

**Item 2** Enter the market(s) of the unserved area. If this application is for a Phase I cellular unserved area, list the market in which the unserved area is located. If this application is for Phase II Cellular unserved areas, list the markets contained within the proposed Service Area Boundaries. Market designators are listed in the FCC Public Notices. Only one Cellular Geographic Service Area (CGSA) may be listed on an application.

**Item 3** Enter the market name of the market designator listed in Item 2.

**Item 4** Enter the sub-market designator only if the market has been subdivided. Sub-market designators are listed in the FCC Public Notices.

**Item 5** Enter the applicable channel block, either 'A' or 'B'.

### ► Cellular System Identification Numbers (SIDs)

If the application request is for a new cellular license (or system), the FCC will provide a system identification number at the time of the license grant. Therefore, this section must be completed only when a request is made to add or delete system identification numbers. If this is a request for a new system identification number, rather than a request to use a system identification number presently assigned to another cellular system, complete item 6. If this is a request to add a system identification number presently assigned to another cellular system or delete a system identification number, complete items 7 and 8. System identification numbers that are currently licensed under this call sign by the FCC will continue to be shown on the authorization as is, unless a specific action is requested in this section.

### Generate New System Identification Numbers

**Item 6** If this is a request to generate new systems identification numbers (system identification numbers that are not presently assigned to another cellular system), enter the number (count) of new systems identification numbers requested. Also attach an exhibit explaining the circumstances and use of the requested system identification numbers.

### **Add/Delete System Identification Numbers**

**Item 7** This item indicates the action the filer wants the FCC to take in the database on the specified system identification number. Enter 'A' for Add, or 'D' for Delete.

**Item 8** Enter the system identification number to be either added or deleted. If the system identification number to be added was originally assigned by the FCC to another cellular system, an attachment is required indicating concurrence of the licensee of the other system for use of the assigned system identification number. Refer to 47 CFR Section 22.941 for more information on system identification numbers.

### **►Control Points**

This section must be completed only when a control point is to be added, modified, or deleted. If you are adding a new control point, complete all items in this section for each control point to be added. If you are modifying an existing control point, in addition to Items 9 and 10, complete only the items that have changed for each control point. If you are deleting a control point, only Items 9 and 10 are required. Control Points that are currently licensed under this call sign by the FCC will continue to be shown on the Authorization as is, unless a specific action is requested in this section.

**Item 9** This item indicates the action the filer wants the FCC to take on the specified control point. Enter 'A' for Add, 'M' for Modify, or 'D' for Delete.

**Item 10** If the control point has been previously licensed under this call sign by the FCC, enter its FCC-assigned control point number (located on the Authorization). For a new control point, assign a temporary code to represent the control point. The assigned code should begin with C to indicate it is a control point and end with a number to uniquely identify it (e.g., C1, C2, C3, etc.). The FCC will assign an official number to the new control point, which will appear on the Authorization.

**Item 11** Enter the street address, city or town, county, and state of the control point. Refer to FCC 601 Main Form Instructions, Appendix II, for a list of valid state, jurisdiction, and area abbreviations.

**Item 12** Enter the telephone number, including area code, where a person responsible for operation of the station or system could be reached.

### **► Commercial Aviation Air-ground Technical Parameters (Antenna Data)**

This section must be completed by Commercial Air-ground applicants when antennas are to be added, modified, or deleted. If you are adding new antennas, complete all items in this section for each antenna to be added. If you are modifying an existing antenna, in addition to Items 13, 15, and 16, complete only the items that have changed for each antenna. If you are deleting antennas, only Items 13, 15, and 16 are required. Technical parameters currently licensed under this call sign by the FCC will continue to be shown on the Authorization as is, unless a specific action is requested in this section.

**Item 13** This item indicates the action the filer wants the FCC to take on the specified antenna. Enter 'A' for Add, 'M' for Modify, or 'D' for Delete.

**Item 14** Enter the channel block of the requested ground station (1-10). Refer to the Commission's rules for Commercial Aviation Air-ground Radiotelephone Services for more information on channel blocks and their assigned frequencies.

**Item 15** For each antenna structure, enter its corresponding location number, as entered on Schedule D Item 2. If the location has been previously licensed under this call sign by the FCC, enter the FCC-assigned location number (located on the Authorization). Otherwise, enter the code assigned on Schedule D to represent the location. Refer to the instructions for Schedule D for more information on assigning location numbers.

**Item 16** If the antenna has been previously licensed with the Commission, enter the antenna's FCC-assigned number (located on the Authorization). Otherwise, enter a temporary code to represent each antenna. The assigned code should begin with an A to indicate it is an antenna and end with a number to uniquely identify it (e.g., A1, A2, A3, etc.). A single location can have multiple antennas. Antenna numbers need only be unique within each location. The FCC will assign an official number to the new antenna, which will appear on the Authorization.

**Item 17** This item reports the actual height at which the antenna is mounted. Enter this item in meters, rounded to the nearest tenth.

**Item 18** This item reports the maximum effective radiated power (ERP) of the facility in any direction on the specified channel. The value must be stated in watts.

## ► Cellular Radial Data

This section must be completed by cellular applicants when adding a new location, modifying the radial data for an existing location, or amending the radial data proposed in a pending application. If you are adding a new location, complete all items in this section. If you are modifying existing radial data or amending a pending application, complete Items 19, 20, 21, and only those items that you are proposing to change. Radial data currently licensed under this call sign by the FCC will continue to be shown on the Authorization as is, unless a specific action is requested in this section.

Applicants must propose one set of radial data for each antenna used at a location. If a sectorized antenna system (i.e. multiple antennas) is to be used, you may submit separate radial data for each of the antenna sectors, or alternatively submit one set of radial data representing the composite antenna pattern for the sector antennas. If separate antenna systems are used for the control channels and voice channels, submit the radial data for the antenna system that establishes the largest service area boundary (SAB).

Item 19 This item indicates the action the filer wants the FCC to take on the radial data of the specified antenna. Enter 'A' for Add, 'M' for Modify, or 'D' for Delete.

Item 20 For each antenna structure, enter its corresponding location number, as entered on Schedule D Item 2. If the location has been previously licensed under this call sign by the FCC, enter the FCC-assigned location number (located on the Authorization). Otherwise, enter the code assigned on Schedule D to represent the location. Refer to the instructions for Schedule D for more information on assigning location numbers.

Item 21 If the antenna has been previously licensed with the Commission, enter the antenna's FCC-assigned number (located on the Authorization). Otherwise, enter a temporary code to represent each antenna. The assigned code should begin with an A to indicate it is an antenna and end with a number to uniquely identify it (e.g., A1, A2, A3, etc.). A single location can have multiple antennas. Antenna numbers need only be unique within each location. The FCC will assign an official number to the new antenna, which will appear on the Authorization. Sectorized antenna systems represented with a composite antenna pattern and single set of radial data, should be reported as a single antenna.

Item 22 If this location contributes to the CGSA, and you are requesting that the CGSA boundary be determined using an alternative method, enter 'Y'. Otherwise enter 'N'. If you respond Yes to this item, you must attach an exhibit explaining the circumstances

Item 23 This item reports the height of the antenna center of radiation above the average terrain elevation (AAT) along each of the eight cardinal radials. Enter this item in meters, rounded to the nearest tenth.

Item 24 This item reports, in watts, the effective radiated power (ERP) along each of the eight cardinal radial directions.

Item 25 This item reports the distance to the Cellular Geographic Service Area (CGSA) produced from the specified antenna. This item should only be reported for those radials that establish the CGSA boundary. Therefore, some azimuths may not have entries. Enter this item in kilometers rounded to the nearest tenth.

## ► Certification

By signing the FCC 601 Main Form, Cellular applicants certify compliance with this item and 47 CFR § 22.913.

Technical Data Schedule for the  
Cellular and Air-ground (Commercial Aviation)  
Radiotelephone Services (Part 22)

Cellular Unserved Area Information

1) Identify whether this is a New or Modification application for a Phase I unserved area or a Phase II unserved area as defined by 47 CFR Section 22.949(a). If so, complete Items 2 through 5, as applicable.				( )Phase I ( )Phase II
2) Market Designator	3) Market Name	4) Sub-Market Designator	5) Channel Block	

Cellular System Identification Numbers

Generate New System Identification Numbers

6) If this is a request to generate new system identification numbers, enter the number of new system identification numbers requested: Also attach an exhibit explaining the circumstances and use of the requested system identification numbers.
--

Add/Delete System Identification Numbers

7) Action A/D	8) SID	7) Action A/D	8) SID

Control Points

9) Action A/M/D	10) Control Point Number	11) Location Street Address, City or Town, County, State	12) Telephone Number

[illegible]

**Cellular Radial Data**

19) Action: (     ) <u>Add</u> <u>Modify</u> <u>Delete</u>	20) Location Number:	21) Antenna Number:
22) If this location contributes to the CGSA, are you requesting that the CGSA boundary be determined using an alternative method? If 'Yes', attach an exhibit explaining circumstances. (     ) <u>Yes</u> <u>No</u>		
Azimuth (degrees from true north)	23) Antenna Height AAT (meters)	24) Transmitting ERP (watts)
0°		
45°		
90°		
135°		
180°		
225°		
270°		
315°		

19) Action: (     ) <u>Add</u> <u>Modify</u> <u>Delete</u>	20) Location Number:	21) Antenna Number:
22) If this location contributes to the CGSA, are you requesting that the CGSA boundary be determined using an alternative method? If 'Yes', attach an exhibit explaining circumstances. (     ) <u>Yes</u> <u>No</u>		
Azimuth (degrees from true north)	23) Antenna Height AAT (meters)	24) Transmitting ERP (watts)
0°		
45°		
90°		
135°		
180°		
225°		
270°		
315°		

I certify that (1) the maximum ERP for the proposed cellular base or repeater station will never exceed 500 Watts and (2) if the distance to the SAB as calculated in accordance with 47 CFR § 22.911 exceeds 79.1 km (45 miles) [Gulf of Mexico MSA] or 40.2 km (25 miles) [all other cellular markets], I have coordinated such use with the licensees of all affected cellular systems on the same channel block within 121 km (75 miles) and concurrence has been obtained from each licensee.

Information and Instructions

**Technical Data Schedule for the  
Maritime and Aviation Services (Parts 80 and 87)**

Form FCC 601, Schedule G, is a supplementary schedule for use with the FCC Application for Wireless Telecommunications Bureau Radio Service Authorization, FCC 601 Main Form. This schedule is used to apply for an authorization to operate a land station in the Maritime Service or a ground station in the Aviation Service, as defined in 47 CFR, Part 80 or Part 87, respectively. It is also used to amend a pending application or modify an existing license in these services. Additionally, this schedule is used by auction winners that must file site-specific technical data for international coordination or for an environmental assessment of a particular site. The FCC 601 Main Form must be filed in conjunction with this schedule. The FCC 601 Main Form must be filed in conjunction with this schedule.

If you are applying for authorization of fixed transmit station locations, you must file technical information for each location, including the antenna structures, using FCC 601, Schedule D, Schedule for Fixed Station Locations and Antenna Structures. It is recommended that you complete Schedule D (if required) prior to completing Schedule G.

If you are applying for authorization of hand held units/mobile transmit locations, temporary fixed station locations, or itinerant stations, you must file technical information for each location or station using FCC 601, Schedule E, Schedule for Mobile, Temporary Fixed, and 6.1 Meter Control Station Locations. It is recommended that you complete Schedule E (if required) prior to completing Schedule G.

The following instructions apply when filing Schedules D or E in tandem with this schedule:

Maritime coast and aviation ground stations may not submit both schedules D and E in the same application package (one application package being an FCC 601 Main Form and any associated schedules). Separate application packages must be submitted for fixed and mobile operations.

Schedule E Item 3 This item does not apply to Maritime Private Coast and Aviation Ground stations.

Schedule E Item 16 Each mobile location can contain only one occurrence of a unit type. For example, if a number of units is entered for 'Hand Held', then all other unit types should be blank. 'Hand Held', 'Mobile', and 'Temporary Fixed' unit types are applicable to any Maritime and Aviation service. 'Aircraft' and 'Itinerant' choices are only applicable to flight test stations.

**Schedule G  
Instructions**

► **Station Class**

Item 1 Enter the appropriate station class code from one of the following tables. There are separate tables for Maritime Service and Aviation Service Stations.

**For Maritime Service**, select the station class code from the following table:

Alaska Private .....	APX
Alaska Public .....	APC
Marine OPS Fixed .....	MFX
Marine Utility .....	FCU
Maritime Receiver Test .....	MRT
Maritime Support-Testing and Training .....	FCA
Private Coast .....	FCL
Public Coast .....	FC
Shore Radionavigation .....	MSR
Shore Radionavigation/RACON .....	RLR
Shore Radar Test .....	MSC
Shore Radiolocation Test .....	RLC

**Note:** Where appropriate, follow each code with 1 for Hand Held/Mobile operations or 2 for Temporary operations.

**For Aviation Service**, select the station class code from the following tables:

**AF Service**

Aeronautical Advisory (Unicom) .....	FAA
Aeronautical Enroute .....	FA
Aeronautical Fixed .....	AX
Aeronautical Multicom .....	MFL
Aircraft (Flight Test Stations only) .....	FMA
Airport Control Tower or RCO .....	FAC
Automatic Weather Observation .....	FAB
Aviation Support Instructional .....	FAS
Aviation Support Service .....	FLU
Flight Test .....	FAT

**AA Service**

Aeronautical Search and Rescue .....	SAR
Aeronautical Utility Mobile .....	MOU
Operational Fixed .....	AOX

**AR Service**

Aeronautical Marker Beacon .....	RLA
Aeronautical Radio Beacon .....	RLB
ELT Test .....	ELT
Glide Path (Slope) .....	RLG
Localizer .....	RLL
Omnidirectional Radio Range .....	RLO
Radar/Radar Test .....	RLD
Radionavigation Land .....	RNV
Radionavigation Land Test .....	RLT

**Note:** Where appropriate, follow each code with 1 for Mobile operations, 2 for Temporary operations, or (for flight test stations only) 3 for Itinerant operations.

**Item 2** This item must be answered 'Y' for Yes for the following station classes:

Aeronautical Advisory  
Aeronautical Enroute/Fixed  
Airport Control Tower Stations

For all other station classes, answer this item 'N' for No.

**Item 3** This item must be answered by all applicants for public coast and Alaska public fixed stations. Otherwise, leave this item blank.

**►Control Points**

This section must be completed only when a control point is to be added, modified, or deleted. If you are adding a new control point, complete all items in this section for each control point to be added. If you are modifying an existing control point, in addition to Items 4 and 5, complete only the items that have changed for each control point. If you are deleting a control point, only Items 4 and 5 are required. Control points that are currently licensed under this call sign by the FCC will continue to be shown on the Authorization as is, unless a specific action is requested in this section.

**Item 4** This item indicates the action the filer wants the FCC to take on the specified control point. Enter 'A' for Add, 'M' for Modify, or 'D' for Delete.

**Item 5** Enter the FCC-assigned control point number (located on the Authorization). For a new control point, assign a temporary code to represent the control point. The assigned code should begin with C to indicate it as a control point and end with a number to uniquely identify it (e.g., C1, C2, C3, etc.). The FCC will assign an official number to the control point, which will appear on the Authorization.

**Item 6** Enter the street address, city or town, county, and state of the control point. Refer to FCC 601 Main Form Instructions, Appendix II, for a list of valid state, jurisdiction, and area abbreviations.



Item 7 Enter the telephone number (including area code) where a person responsible for operation of the station or systems could be reached.

#### ►Antenna Information

This section must be completed only when antennas are to be added, modified, or deleted. If you are adding a new antenna, complete all items for each antenna to be added. If you are modifying an existing antenna, in addition to Items 8, 9, and 10, complete only the items for the antenna that have changed. If you are deleting an antenna, only Items 8, 9, and 10 are required. Antennas that are currently licensed under this call sign by the FCC will continue to be shown on the Authorization as is, unless a specific action is requested in this section.

Item 8 This item indicates the action the filer wants the FCC to take on the specified antenna. Enter 'A' for Add, 'M' for Modify, or 'D' for Delete.

Item 9 For each antenna, enter its corresponding location number, as entered on Schedule D Item 2 or Schedule E Item 2. If the location has been previously licensed under this call sign by the FCC, enter the FCC-assigned location number (located on the Authorization). Otherwise, enter the code assigned on Schedule D or Schedule E to represent the location. Refer to the instructions for Schedules D and E for more information on assigning location numbers.

Item 10 If the antenna has been previously licensed under this call sign by the FCC, enter the antenna's FCC-assigned number (located on the Authorization). Otherwise, enter a temporary code to represent each antenna. The assigned code should begin with an A to indicate it is an antenna and end with a number to uniquely identify it (e.g., A1, A2, A3, etc.). A single location can have multiple antennas. Antenna numbers need only be unique within each location. The FCC will assign the new antenna an official number, which will appear on the Authorization. If using hand held transmitters, consider all hand held transmitters at a given location to be one antenna.

**Note:** Location number (Item 9) and antenna number (Item 10) are used to associate information in the Antenna Information Section with information in the Frequency Information Section. To do this, enter the necessary information into the Antenna Information Section using the appropriate location number and antenna number. Then, enter the necessary information in the Frequency Information Section for that antenna, using the same location number/antenna number pair. Each antenna specified must have corresponding frequency information.

Item 11 Enter the ratio (decibels) of the power required at the input of a loss-free reference antenna to the power supplied to the input of the given antenna to produce, in a given direction, the same field strength or the same power-flux density at the same distance. This information should be available from the specification sheet included with the antenna at the time of purchase.

Item 12 Enter the angle in the horizontal plane of the transmitting antenna main lobe measured clockwise with respect to True North in degrees, or enter '360' to indicate that the transmitting antenna is omni-directional.

Item 13 Enter the actual height from the ground to the tip of the antenna. Enter this item in meters, rounded to the nearest tenth.

Item 14 Enter the approximate attenuation, including any padding, to the nearest tenth of a dB, between the point at which the power output of the transmitter is measured for type-acceptance/notification approval and the input to the antenna. If this value is less than 1 dB, leave this item blank. For power splits, the power reduction for a particular path will be considered the loss.

Item 15 Enter the Half Power Beamwidth (Aeronautical Enroute HF and Public Coast HF stations only).

Item 16 Enter the Receive Zone (Aeronautical Enroute HF and Public Coast HF stations only).

#### ►Frequency Information

This section must be completed only when frequencies are to be added, modified, or deleted. If you are adding new frequencies, complete all items for each frequency to be added. If you are modifying existing attributes of frequencies, complete all items for each frequency to be modified. In order to modify an Emission Designator (Item 24), complete Items 17 - 20, specifying the appropriate location number, antenna number, and frequency, and list all active emission designators now associated with the specified location, antenna, and frequency (complete as many rows as necessary, listing emission designators in Item 24). If you are deleting frequencies, only Items 17 through 20 are required. Frequencies that are currently licensed under this call sign by the FCC will continue to be shown on the Authorization as is, unless a specific action is requested in this section.

**Note:** If station class FAC (for Airport Control Tower/RCO station) was entered in Item 1, complete Items 17, 18, 19, 20b, 20c, 21, 22, and 24 on page 4 of this schedule. All station classes except FAC complete Items 17, 18, 19, 20a, 21, 22, 23, and 24 on page 3 of this schedule. For multiple frequency lines, repeat the location number/antenna number combination for each frequency. For example:

Location	Antenna	Frequency	Location	Antenna	Frequency (MHz)
F1	A1	XXXXX.XXXX	F1	A2	BBBBB.BBBB
F1	A1	YYYYY.YYYY	F2	A1	CCCCC.CCCC
F1	A2	AAAAA.AAAA	F2	A1	DDDDD.DDDD

**Item 17** This item indicates the action the filer wants the FCC to take on the specified antenna. Enter 'A' for Add, 'M' for Modify, or 'D' for Delete.

**Item 18** For each antenna structure, enter its corresponding location number, as entered in Item 9 of the Antenna Information Section of this schedule.

**Item 19** For each antenna, enter its corresponding antenna number, as entered in Item 10 of the Antenna Information Section of this schedule.

**Item 20a (All station classes except Airport Control Tower/FAC)** Enter the specific frequencies in Megahertz (MHz) in the 'Lower' column. The requested frequencies must be available in the Commission's rules governing the radio service in which you are seeking eligibility. If applying for a single-sideband frequency, show carrier frequency only. If applying for a frequency band, show the lower and upper frequencies in the appropriate columns. Use a separate line for each frequency or frequency band. For Aviation Ground Radionavigation (Nav aids) or Automatic Weather Observation/Automatic Surface Observation stations: if frequency is not known, you may leave Item 20a blank. Items 21 and 22 must be completed.

If multiple frequencies are being added to one location, complete as many lines as necessary, repeating the location number in Item 18 and the antenna number in Item 19 for each frequency added. A separate line needs to be completed for each frequency if there are multiple emissions, multiple antenna tips, multiple station classes, etc. To do this, complete as many lines for each frequency as necessary, repeating the location number in Item 18, the antenna number in Item 19, the frequency in Item 20a, and the remaining technical information for each frequency line, as appropriate.

**Item 20b (Station Class Airport Control Tower/FAC only)** Enter the specific frequencies in Megahertz (MHz), if known. The requested frequencies must be available in the Commission's rules governing the radio service in which you are seeking eligibility. Use a separate line for each frequency.

If multiple frequencies are being added to one location, complete as many lines as necessary, repeating the location number in Item 18 and the antenna number in Item 19 for each frequency added. A separate line needs to be completed for each frequency if there are multiple emissions, multiple antenna tips, multiple station classes, etc. To do this, complete as many lines as for each frequency as necessary, repeating the location number in Item 18, the antenna number in Item 19, the frequency in Item 20b, and the remaining technical information for each frequency line, as appropriate.

**Item 20c (Station Class FAC only)** Enter one of the following frequency type codes for each requested frequency:

- L** Local Control
- G** Ground Control
- E** Emergency (121.5 MHz) - List this frequency **only** if you wish to transmit on the frequency 121.5 MHz. Do not list the frequency if you intend to **monitor only**. If you wish to be exempt from the monitoring requirement, you must submit your exemption request as an attachment to this form.
- O** Other - Use this code for ATIS (Automatic Terminal Information Service) and any other frequency not defined above.

If a Local Control, Ground Control, or Other frequency has not yet been reserved by FAA, you may leave Item 20b blank. However, you must complete a line for each requested frequency (Items 17, 18, 19, 20c, 21, 22, 23).

**Item 21** Enter the maximum transmitter output power in watts.

**Item 22** Enter the Proposed Hours of Operation (Public Coast, Public Fixed, and Airport Control Tower stations only).

**Item 23** Enter the Operational Altitude (Aeronautical Enroute VHF stations only).

**Item 24** Enter the emission designator for each station. The new ITU (International Telecommunications Union) emission designators may be used in place of the old designators. The following are samples of the corresponding new ITU designators for the most commonly used emission designators.

**Note:** These are samples only and do not necessarily represent an emission for which you should apply.

	<b>Old</b>	<b>New</b>
Frequency modulated (FM) voice	16F3	16K0F3E
Frequency modulated (FM) voice	13.6F3	13K6F3E
Frequency modulated digitized voice	20F3Y	20K0F1E
Frequency modulated digitized non-voice	20F9Y	20K0F1D
Amplitude modulated single sideband voice	2.8A3J	2K80J3E
Amplitude modulated (AM) voice	6A3	6K00A3E

#### ►FAA Coordination Information

**Item 25** This item must be completed if the filer has specified any of the following station classes in Item 1 and is requesting a new or modified station license:

Aviation Support (121.950 MHz only)  
Airport Control Tower, including RCO  
Radionavigation Land (all Navigational Aids)  
Radionavigation Land Test (RLT)  
AWOS/ASOS (Automatic Weather Observation/Automatic Surface Observation)

Enter the FAA regional office to where the notification was sent and the date that the FAA was notified. The Federal Aviation Administration (FAA) must be notified that this application is being submitted. Notification to the FAA must be made concurrently with the filing of this application. Applications submitted without the required FAA notification will be returned to the applicant without action.

#### ►Certifications

Indicate the certifications that pertain to the type of station for which this application is being filed. By signing the Main Form filed in conjunction with this schedule, the applicant certifies that the statements listed in this section are true, complete, correct, and made in good faith.

#### International Registration Information

As a signatory party to international treaty agreements, the FCC performs certain actions regarding the use of radio. The technical details of your station parameters may be reported to the International Telecommunications Union, Geneva, Switzerland, and to countries which border on or in close proximity to the United States. This information along with data reported by other nations will be used to protect reported stations and aid in resolution of interference disputes between licensees in different countries.

Certain marine coast stations, because of their geographic location, would be best protected by provision of additional information. Specifically, this includes any proposed station which is located in the region north of Line 'A', or in the State of Alaska east of Line 'C'. Refer to the Commission's rules for a detailed explanation of Lines A and C. Appendix I in FCC Form 601 Main Form Instructions contains a list of counties, by state, having areas North of Line A.

Unless advised to the contrary, the FCC will make certain assumptions which reflect the typical fixed or temporary fixed VHF marine coast station. Carefully review the list below with respect to your particular situation. If you believe that these assumptions would leave your station insufficiently protected, provide the actual station parameters in Schedule G, Items 30 through 33, using Items 26 through 29 to identify the locations, antennas, and frequencies. If you do not provide the actual data and an interference problem arises involving another country's station, your station will be protected only to the limit of the FCC's assumptions.

**The following station parameters will be assumed unless otherwise stated:**

**Item 30 Antenna Azimuth of Main Lobe.** The FCC will report each fixed or temporary fixed VHF marine coast station as having an omnidirectional (360) azimuth.

**Item 31 Beamwidth.** Where an omnidirectional antenna is assumed, beamwidth has no relevance, and therefore, no assumed value will be used.

**Item 32 Antenna Polarization.** All stations will be reported as having antennas with vertical polarization.

**Item 33 Antenna Gain.** The antenna gain for all fixed and temporary fixed VHF marine coast stations will be assumed to be 6 dB.

1) Station Class:	
2) For Ground only, will the service of the station be available to any aircraft desiring to use it?	( <input type="checkbox"/> ) <u>Yes</u> <u>No</u>
3) For Coast only, will this station be open to Public Correspondence?	( <input type="checkbox"/> ) <u>Yes</u> <u>No</u>

**Control Point(s) (Other than at the transmitter)**

4) Action A/M/D	5) Control Point Number	6) Location Street Address, City or Town, County, State	7) Telephone Number

[illegible]

**A) All Station Classes complete except: Airport Control Tower/FAC (See Frequency Information part B).**

[illegible]

25) Applicants for a new or modified Aviation Support (121.950 MHz), Control Tower, RCO, Radionavigation Land, Radionavigation Land Test, or AWOS/ASOS must provide the following information:

FAA Regional Office Notified: \_\_\_\_\_

Date Notified: \_\_\_\_\_

**B) Complete only if requested frequencies are for Airport Control Tower/FAC Station Class**

[illegible]

## FAA Coordination Information

25) Applicants for a new or modified Aviation Support (121.950 MHz), Control Tower, RCO, Radionavigation Land, Radionavigation Land Test, or AWOS/ASOS must provide the following information:

FAA Regional Office Notified: \_\_\_\_\_

Date Notified: \_\_\_\_\_

## International Registration Information - Additional Technical Information

[illegible]



## Certifications

### Private Coast station and Marine Utility station certification. Check all that apply.

I certify that I am:

- ☐ Seeking authorization in an area having a recognized frequency coordinating committee (Southern California Marine Radio Council, North Pacific Marine Radio Council) and the committee has endorsed the use of the frequency(ies) and location(s) requested.
- ☐ Regularly engaged in the operation, docking, direction, construction, repair, servicing or management of one or more commercial transport vessels or U.S., state or local government vessels; or, responsible for the operation, control, maintenance, or development of a harbor, port, or waterway used by commercial transport vessels; or responsible for the operation of bridges, structures, or other installations that are part of, or directly related to, a harbor, port, or waterway when the operation of such facilities requires radio communications with vessels for safety or navigation.
- ☐ Engaged in furnishing a ship arrival and departure service; or, a corporation furnishing a nonprofit radio communication service to its parent corporation, a subsidiary of the parent, or its own subsidiary, where the party to be served is eligible for a private coast or marine utility station license; or, a nonprofit corporation or association organized to furnish a maritime mobile service solely to persons who operate one or more commercial transport vessels.
- ☐ A person controlling public mooring facilities; or, a yacht club with moorage facilities.
- ☐ A person servicing or supplying vessels other than commercial transport vessels; or, a nonprofit organization providing noncommercial communications to vessels other than commercial transport vessels.

### Operational Fixed station certification.

- ☐ I certify that I am the licensee of a coast station and no other suitable telecommunications facilities are available to satisfy coast station requirements.

### Maritime Support station certification.

- ☐ I certify that I intend to use this authorization to train personnel associated with the maritime service, or to test, demonstrate, or maintain ship or coast radio equipment.

### Aeronautical Fixed station certification.

- ☐ I certify that I am the licensee of an associated aeronautical enroute station and that adequate land line facilities are not available to fulfill this communications need.

### Aeronautical Advisory station (Unicom) certification.

- ☐ I certify that the station will be located on the property of the airport to be served and, in cases where the airport does not have a control tower, RCO, or FAA flight service station, that I have notified the owner of the airport and all aviation service organizations located at the airport at least ten days prior to application.

### Aeronautical Search and Rescue station certification.

- ☐ I certify that I am a governmental entity or private organization chartered to perform aeronautical search and rescue functions.

### Flight Test station certification. Check all that apply.

I certify that I am:

- ☐ Applying for UHF frequencies and request use of them in support of a contract with the U.S. Government.
- ☐ A manufacturer of aircraft or major aircraft components.
- ☐ A parent corporation or its subsidiary if either corporation is a manufacturer of aircraft or major aircraft components.
- ☐ An educational institution or person primarily engaged in the design, development, modification, and flight test evaluation of aircraft or major aircraft components.

### Aviation support station certification. Check all that apply.

I certify that I am:

- ☐ The operator of a flight school.
- ☐ An operator of lighter than air aircraft.
- ☐ Engaged in soaring or free ballooning.
- ☐ The operator of an airport or aviation service organization located on an airport.

### Radiodetermination station certification. Check all that apply.

- ☐ The FAA is not prepared to render the service for which I am applying.
- ☐ I am engaged in the development, manufacture, or maintenance of aircraft radionavigation equipment.
- ☐ I intend to establish the proposed facility at an airport for the use of the public.
- ☐ I am engaged in the testing, manufacture, or design of ELTs or I train personnel in the operation and location of ELTs.

### Civil Air Patrol station certification.

- ☐ I certify that I represent Wings or the Headquarters of the Civil Air Patrol.

### Aeronautical Enroute/122.825 or 122.875 MHz Certification.

- ☐ I certify that this station will provide communications only to aircraft with a maximum capacity of up to 56 passengers or carrying up to 18,000 lbs. of cargo.

### Aeronautical Utility Mobile certification. Check all that apply.

- ☐ I certify that I have a need to routinely operate a ground vehicle on the airport movement area.
- ☐ I certify that I am the airport owner or operator, or a state or local governmental agency, or I have obtained permission from the airport owner/operator to operate a vehicle on the airport movement area.
- ☐ I certify that I have obtained an agreement from the Air Traffic Manager of the airport control tower that approves the requested use of the local control (tower) or RCO frequency.

**Information and Instructions**

**Technical Data Schedule for the  
Private Land Mobile and Land Mobile Broadcast Auxiliary Radio Services  
(Parts 90 and 74)**

FCC Form 601, Schedule H, is a supplementary schedule for use with the FCC Application for Wireless Telecommunications Bureau Radio Service Authorization, FCC 601 Main Form. This schedule is used to apply for an authorization to operate a radio station in the Private Land Mobile and Land Mobile Broadcast Auxiliary Radio Services, as defined in 47 CFR, Parts 90 and 74. It is also used to amend a pending application or modify an existing license in these services. Additionally, this schedule is used by auction winners that must file site-specific technical data for international coordination or for an environmental assessment of a particular site. The FCC 601 Main Form must be filed in conjunction with this schedule.

If you are applying for authorization of fixed transmit station locations, you must file technical information for each location, including the antenna structures, using FCC 601, Schedule D, Schedule for Fixed Station Locations and Antenna Structures. It is recommended that you complete Schedule D (if required) prior to completing Schedule H.

If you are applying for authorization of mobile transmit locations, temporary fixed station locations, or 6.1 meter control stations, you must file technical information for each location or station using FCC 601, Schedule E, Schedule for Mobile, Temporary Fixed, and 6.1 Meter Control Station Locations. It is recommended that you complete Schedule E (if required) prior to completing Schedule H.

If you are applying for authorization of a mobile station operating around a fixed location, you must file both Schedule D and Schedule E. Technical information for each schedule must be collected separately. The fixed location value entered in Item 2 on Schedule D must also be entered in Item 3 on Schedule E. It is recommended that you complete Schedules D and E (if required) prior to completing Schedule H.

**Schedule H  
Instructions**

**►Eligibility**

Item 1 Enter the number and paragraph of the FCC Rule Section that describes the eligibility for the radio service you specified in Item 1 of the FCC 601 Main Form.

**►Frequency Coordinator Information**

Item 2 Enter 'Yes' if frequency coordination has been completed for this application. Otherwise enter 'No'.

Items 3, 4, 5 These items will be completed by the appropriate certified frequency coordinators for those applicants who are required to comply with the frequency coordination requirements. Broadcast Auxiliary Applicants who have notified their local frequency coordination committee should enter the name of the frequency coordinator and the telephone number, including area code, of the person contacted (Item 4 can be left blank).

**►Associated Call Signs**

Item 6 List any call signs that are part of the system and licensed separately.

## ► Control Points

This section must be completed only when a control point is to be added, modified, or deleted. If you are adding a new control point, complete all items in this section for each control point to be added. If you are modifying a control point, in addition to Items 7 and 8, complete only the items that have changed for each control point. If you are deleting a control point, only Items 7 and 8 are required. Control points that are currently licensed under this call sign by the FCC will continue to be shown on the authorization as is, unless a specific action is requested in this section.

**Item 7** This item indicates the action the filer wants the FCC to take on the specified control point. Enter 'A' for Add, 'M' for Modify, or 'D' for Delete.

**Item 8** Enter the FCC-assigned control point number (located on the Authorization). For a new control point, assign a temporary code to represent the control point. The assigned code should begin with C to indicate it as a control point and end with a number to uniquely identify it (e.g., C1, C2, C3, etc.). The FCC will assign an official number to the new control point, which will appear on the Authorization.

**Item 9** Enter the street address, city or town, county, and state of the control point. Refer to FCC Main Form Instructions, Appendix II, for a list of valid state, jurisdiction, and area abbreviations.

**Item 10** Enter the telephone number (including area code) where a person responsible for operation of the control point could be reached.

## ► Broadcast Auxiliary Only

**Item 11** This item applies only to the Land Mobile Broadcast Auxiliary Radio services. If there is an associated parent station, enter the facility identification number of the parent station, the Radio Service of the parent station (AM, FM, or TV), and the city and state of the parent station principal community. If there is more than one parent station, select one for the purpose of completing Item 10 (see note). If there is no associated parent station, enter the appropriate code for the applicant and the state of primary operation.

**Note:** Actions (i.e., renewals, assignments, cancellations, etc.) taken on the parent station will similarly effect the Broadcast Auxiliary Station.

## ► Antenna Information

This section must be completed only when antenna information is to be added, modified, or deleted. If you are adding a new antenna, complete all items for each antenna to be added. If you are modifying an existing antenna, in addition to Items 12, 13, and 14, complete only the items that have changed for the antenna. If you are deleting an antenna, only Items 12, 13, and 14 are required. Antennas that are currently licensed under this call sign by the FCC will continue to be shown on the Authorization as is, unless a specific action is requested in this section.

**Item 12** This item indicates the action the filer wants the FCC to take on the specified antenna. Enter 'A' for Add, 'M' for Modify, or 'D' for Delete.

**Item 13** For each antenna, enter its corresponding location number, as entered on Schedule D Item 2 or Schedule E Item 2. If the location has been previously licensed under this call sign by the FCC, enter the FCC-assigned location number (located on the Authorization). Otherwise, enter the code assigned on Schedule D or Schedule E to represent the location. Refer to the instructions for Schedules D and E for more information on assigning location numbers.

**Item 14** If the antenna has been previously licensed under this call sign by the FCC, enter the antenna's FCC-assigned number (located on the Authorization). Otherwise, enter a temporary code to represent each antenna. The assigned code should begin with an A to indicate it is an antenna and end with a number to uniquely identify it (e.g., A1, A2, A3). A single location can have multiple antennas. Antenna numbers need only be unique within each location. The FCC will assign an official number to the new antenna, which will appear on the Authorization.

**Note:** Location number (Item 13) and antenna number (Item 14) are used to associate information in the Antenna Information Section with information in the Frequency Information Section. To do this, enter the necessary technical information into the Antenna Information Section using the appropriate location number and antenna number. Then, enter the necessary technical information in Frequency Information Section for that antenna, using the same location number/antenna number pair. Each antenna specified in the Frequency Information Section must have corresponding data in the Antenna Information Section.

**Item 15** This is not required for Land Mobile Broadcast Auxiliary Radio Services. For operations in 150-174 MHz, 220-222 MHz, 450-470 MHz, and above 470 MHz, enter the height of the antenna above ground elevation for the average terrain. Enter this item in meters, rounded to the nearest tenth. See the applicable rules for instructions for computing the height above average terrain for the antenna. Applicants applying on frequencies not mentioned in this paragraph may omit this item.

**Item 16** Enter the height above ground level to the center of the antenna's radiating element. Enter this item in meters, rounded to the nearest tenth.

#### ► Frequency Information

This section must be completed only when frequencies are to be added, modified, or deleted. If you are adding a new frequency, complete all items for each frequency to be added. If you are modifying attributes of an existing frequency, in addition to Items 17 through 20, complete only the items that have changed for the frequency. In order to modify an Emission Designator (Item 24), complete Items 17 - 20, specifying the appropriate location number, antenna number, and frequency, and list all active emission designators now associated with the specified location, antenna, and frequency (complete as many rows as necessary, listing emission designators in Item 24). If you are deleting a frequency, only Items 17 through 20 are required. Frequencies that are currently licensed under this call sign by the FCC will continue to be shown on the Authorization as is, unless a specific action is requested in this section.

Enter frequency information for each antenna specified in the Antenna Information Section. For multiple frequency lines, repeat the location number/antenna number combination for each frequency. For example:

<u>Location</u>	<u>Antenna</u>	<u>Frequency (MHz)</u>
F1	A1	XXX.XXXX
F1	A1	YYY.YYYY
F1	A1	ZZZ.ZZZZ
F1	A2	AAA.AAAA
F1	A2	BBBBB.BBBB
F2	A1	CCCCC.CCCC
F2	A1	DDDDD.DDDD

**Item 17** This item indicates the action the filer wants the FCC to take on the specified antenna. Enter 'A' for Add, 'M' for Modify, or 'D' for Delete.

**Item 18** For each antenna, enter its corresponding location number, as entered in Item 13 of the Antenna Information Section of this Schedule.

**Item 19** For each antenna, enter its corresponding antenna number, as entered in Item 14 of the Antenna Information Section of this Schedule.

**Item 20** Enter the specific frequencies in Megahertz. The requested frequencies must be available in the Commission's rules governing the radio service in which you are seeking eligibility. Use a separate line for each frequency (the exceptions being that 800 MHz SMR mobile and control stations are now designated by frequency range 806-821 and 900 MHz SMR mobile and control stations are now designated by frequency range 896-901). Low Power Broadcast Auxiliary applicants should refer to Rule Section 74.802 for a complete and accurate listing of the acceptable frequency ranges.

**Note:** If you are required to complete the Additional Technical Information Section, location number (Item 13) and frequency (Item 14) are used to associate information in the Technical Information Section with data in the Additional Technical Information Section. To do this, enter information into the Technical Information Section using the appropriate location number and frequency. Then enter information in the Additional Technical Information Section for that frequency, using the same location number and frequency.

**Item 21** Enter the appropriate station class code from the following table. Definitions for most of these items are listed in the Commission's rules.

**Note:** Where appropriate, follow each code with 'T' for Temporary, 'I' for Itinerant, 'S' for Standby, 'C' for Interconnect, 'J' for Temporary Interconnect, 'K' for Standby Interconnect, or 'L' for Itinerant Interconnect. For example, FBT means Temporary Base.

Base .....	FB
Mobile Relay .....	FB2
Community Repeater .....	FB4
Private Carrier (Profit) .....	FB6
Private Carrier (Nonprofit) .....	FB7
Control .....	FX1*
Mobile .....	MO
Mobile/Vehicular Repeater .....	MO3
Private Carrier Mobile Operation (Profit) .....	MO6
Private Carrier Mobile Operation (Non-profit) .....	MO7
Operational Fixed .....	FXO
Fixed Relay .....	FX2
Fixed .....	FX**
Radiolocation Land .....	LR
Radiolocation Weather Radar .....	WDX
Radiolocation Mobile .....	MR
Secondary Fixed Signaling .....	FX3

\*Station associated with a mobile relay that employs the same frequency as the associated mobile station for control purposes.

\*\*Station operating on frequencies available for fixed use for control purposes in accordance with applicable rules.

**Item 22** Enter the number of actual transmitting units at each station.

Normally, only one transmitter (base, mobile, relay, etc.) is associated with station classes that indicate operation at a permanent/fixed location. Therefore, for these station classes, the number 1 should usually be entered. However, if more than one transmitter is placed at the same location, then enter the appropriate number.

For transmitters associated with station classes that indicate mobile operation, enter the total number of mobile units. The total number of mobile units is normally the sum of vehicular, portable, aircraft, and marine units that will be placed in operation at the time of grant plus the units for which purchase orders have been signed and will be in use prior to the end of the stations construction period. Some exceptions are provided for in the rules, which should be noted.

**Note:** Paging receivers should not be counted as mobile units. These receivers should be listed separately in Item 23 of this Schedule H.

**Item 23** Enter the number of paging receivers in this system.

**Item 24** Enter the emission designator for each station. Normally, land mobile operations are intended to provide voice communications. The new ITU (International Telecommunications Union) emission designators **must** be used in place of the old designators. The following provides samples of the corresponding new ITU designators for the most commonly used emission designators. These are samples only and do not necessarily represent an emission for which you should apply.

	Old	New
Frequency modulated (FM) voice	20F3	20K0F3E
Frequency modulated (FM) voice	13.6F3	13K6F3E
Frequency modulated digitized voice	20F3Y	20K0F1E
Frequency modulated digitized non-voice	20F9Y	20K0F1D
Amplitude modulated single sideband voice	3A3J	3K00J3E
Amplitude modulated (AM) voice	8A3	8K00A3E
Frequency modulated voice (12.5 KHz channel)		11K3F3E

**Item 25** When operating with single sideband (A3J or new designator J3E) emission, enter the peak envelope power (watts), followed by the letter X, which represents peak envelope power in accordance with Appendix 1 of the ITU Radio Regulations. For operations using the emission designators NON, A1A, A2D, A3E, A9W, F1B, F2D, F3E, and F9W – enter the mean RF output power (watts) normally supplied by the transmitter to the antenna feedline. (See the applicable rules.)

**Note:** The power entered should be the minimum required for satisfactory operations.

**Item 26** This information is required for operations above 10 MHz from applicants requesting new station authorizations and for major modifications as described in the applicable rules.

Enter the effective radiated power (ERP). The ERP is the transmitted output power times the net gain of the antenna system. This is the gain of the antenna minus the transmission losses, which include losses attributable to the transmission line, duplexers, cavity filters, and isolators. The actual formula is:

ERP (watts) equals Power (watts) times Antilog of (net gain in dB divided by 10)

#### •Additional Technical Information

All Remote Pick Up Broadcast Auxiliary Radio Service fixed location stations and all stations proposing to operate on frequencies below 27.5 MHz **MUST** complete this section if the filing is for a new Authorization or if a modification or deletion of the existing Additional Antenna Information needs to be reported. Failure to do so will result in the return of your application without further action. Land Mobile stations located near international borders that seek protection from interference should also complete this section if you believe that the assumptions listed below in the International Registration Information Section would leave your station insufficiently protected internationally. If so, provide the actual data on which interference protection should be based. If you do not provide the actual data and an interference problem arises involving another country's station, your station will be protected only to the limit of the FCC's assumptions. This is especially important for stations proposed to be operated in any of the counties listed in Appendix I of the FCC 601 Main Form instructions.

This section must be completed only when additional technical information is to be added, modified, or deleted. If you are adding a new additional technical information, complete all items for each set of additional technical information to be added. If you are modifying additional technical information, in addition to Items 27 through 30, complete only the items that have changed for the additional technical information. If you are deleting additional technical information, only Items 27 through 30 are required. Technical information that is currently licensed under this call sign by the FCC will continue to be shown on the Authorization as is, unless a specific action is requested in this section.

**Item 27** This item indicates the action the filer wants the FCC to take on the specified technical information for the frequency. Enter 'A' for Add, 'M' for Modify, or 'D' for Delete.

**Item 28** For each frequency, enter its corresponding location number, as entered in Item 20 of this schedule.

**Item 29** For each frequency, enter its corresponding antenna number, as entered in Item 21 of this schedule.

**Item 30** Enter the specific frequencies in Megahertz. The requested frequencies must be available in the Commission's rules governing the radio service in which you are seeking a license. Use a separate line for each frequency (the exceptions being that 800 MHz SMRS mobile and control stations are now designated by frequency range 806-821 and 900 MHz SMR mobile and control stations are now designated by frequency range 896-901). Low Power Broadcast Auxiliary applicants should refer to Rule Section 74.802 for a complete and accurate listing of the acceptable frequency ranges.

**Item 31** Enter the angle in the horizontal plane of the transmitting antenna main lobe measured clockwise with respect to True North (degrees) or enter 360 to indicate the transmitting antenna is omni-directional.

**Item 32** For directional antennas, enter the total angle (degrees) measured horizontally in a plane containing the direction of maximum radiation within which the power radiated in any direction does not fall more than 3 dB below the power radiated in the direction of maximum radiation. This information should be available from the specification sheet included with the antenna at time of purchase.

**Item 33** Enter one of the following code letters to represent the polarization of the transmitting antenna for those circuits above 27.5 MHz:

- E – Elliptical
- F – 45 degrees
- H – Horizontal
- J – Linear
- L – Left-hand circular
- R – Right-hand circular
- S – Horizontal and vertical
- T – Right and left-hand circular
- V – Vertical
- X – Other (provide a description)

**Item 34** Enter the ratio (decibels) of the power required at the input of a loss-free reference antenna to the power supplied to the input of the given antenna to produce, in a given direction, the same field strength or the same power flux-density at the same distance. This information should be available from the specification sheet included with the antenna at time of purchase.

### International Registration Information

As a signatory party to international treaty agreements, the FCC performs certain actions regarding the use of radio. The technical details of your station parameters may be reported to the International Telecommunications Union, Geneva, Switzerland, and to countries which border on or in close proximity to the United States. This information along with data reported by other nations will be used to protect reported stations and aid in resolution of interference disputes between licensees in different countries.

Certain stations, because of their geographic location, would be best protected by provision of additional information. Specifically, this includes any proposed station which is located in the region north of Line 'A', or in the State of Alaska east of Line 'C'. Refer to the Commission's rules for a detailed explanation of Lines A and C. Appendix I in FCC Form 601 Main Form Instructions contains a list of counties, by state, having areas North of Line A. If the desired station is to operate in the 806-821/851-866, 821-824/866-869, 896-901/935-940 MHz bands, please consult the applicable rules for available frequencies and use near the United States/Canada/Mexico borders.

**Note:** For control stations meeting the 6.1 meter (20 foot) criteria that require greater than 5 watts output power/ERP for operations in regions north of Line 'A' or in Alaska east of Line 'C', complete Form FCC 601 Schedule D, as applicable, and Items 12 through through 25 of this Schedule H.

Unless advised to the contrary, the FCC will make certain assumptions which reflect the typical station in these services. Carefully review the list below with respect to your particular situation. If you believe that these assumptions would leave your station insufficiently protected, provide the correct data in the Additional Technical Information Section of this Schedule H. If you do not provide the actual data and an interference problem arises involving another country's station, your station will be protected only to the limit of the FCC's assumptions.

**The following station parameters will be assumed unless otherwise stated:**

- Item 31 Antenna Azimuth of Main Lobe.** The FCC will report each base or mobile relay station as having an omnidirectional (360°) azimuth. It will also be assumed that each control station associated with a mobile relay station has a directional antenna with its azimuth of maximum radiation directed toward the mobile relay station.
- Item 32 Beamwidth.** Where an omnidirectional antenna is assumed, beamwidth has no relevance, and therefore, no assumed value will be used. For control stations we will assume 20°.
- Item 33 Antenna Polarization.** All stations will be reported as having antennas with vertical polarization.
- Item 34 Antenna Gain.** The antenna gain for all stations will be assumed to be 6 dB.

**Class of Operation for HF Fixed Stations.** All HF Fixed applicants must file using the Additional Technical Information Section of this schedule. Therefore, no assumptions will be made.

**Receiver Information.** All stations specified on the same application form are assumed to be communicating with each other as a system. Receivers will be assumed to operate at the same location as the transmitter. In other words, it is assumed that the receiver site for a mobile station transmission is the location of the associated base station. The receiver site for a base station transmission is assumed to be the area of operation of the associated mobile stations. For a control station transmission, it is assumed that the location of the associated mobile relay station is the location of the receiver.

**Control stations** meeting the 6.1 meter (20 foot) criteria that are operating in the region north of Line 'A' or in Alaska east of Line 'C' will not be coordinated unless FCC 601 Schedule D is completed as applicable, along with Items 12 through through 25 of this Schedule H. The ERP will be limited to 5 watts if the fixed location is not provided for controls meeting the 6.1 meter (20 foot) criteria operating in these areas.

Technical Data Schedule for the  
Private Land Mobile and Land Mobile Broadcast Auxiliary  
Radio Services (Parts 90 and 74)

Approved by OMB  
3060 - 0798  
See 601 Main Form instructions  
for public burden estimate

**Eligibility**

1) Rule Section:

**Frequency Coordinator Information (if not self-coordinated)**

2) Has frequency coordination been completed for this application? ( )Yes/No		
3) Frequency Coordination Number	4) Name of Frequency Coordinator	5) Telephone Number

**6) Associated Call Signs (Attach additional sheets if required)**


**Control Point(s) (Other than at the transmitter)**

7) Action A/M/D	8) Control Point Number	9) Location Street Address, City or Town, County, State	10) Telephone Number

**11) Broadcast Auxiliary Only**

If there is an associated Parent Station, provide:	Facility Id of Parent Station:	Radio Service of Parent Station:	City and State of Parent Station Principal Community:
If there is no associated parent station, this applicant is a: ( ) Broadcast Network Entity    Television Cable Operator    Motion Picture Producer    Television Producer			State of Primary Operation:



[illegible]

### Frequency Information

[illegible]

[illegible]

Information and Instructions

**Instructions for Technical Data Schedule for the  
Fixed Microwave and Microwave Broadcast Auxiliary Services  
(Parts 101 and 74)**

Form FCC 601, Schedule I, is a supplementary schedule for use with the FCC Application for Wireless Telecommunications Bureau Radio Service Authorization, FCC 601 Main Form. This schedule is used to apply for an authorization to operate a radio station in the Fixed Microwave and Microwave Broadcast Auxiliary Services, as defined in 47 CFR, Parts 101 and 74. It is also used to amend a pending application or modify an existing license in these services. Additionally, this schedule is used by auction winners that must file site-specific technical data for international coordination or for an environmental assessment of a particular site. The FCC 601 Main Form must be filed in conjunction with this schedule. The FCC 601 Main Form must be filed in conjunction with this schedule.

All site and technical information, whether pertaining to a fixed location or an area location, is filed on Schedule I. Do not file FCC 601, Schedule D - Schedule for Fixed Station Locations and Antenna Structures, or FCC 601, Schedule E - Schedule for Mobile, Temporary Fixed, and 6.1 Meter Control Station Locations, in conjunction with Schedule I.

**Schedule I  
Instructions**

**Administrative Information**

**Item 1** If this application is being filed as part of a pack, either simultaneously with the pack or as a late addition to the pack, enter 'Y'. Otherwise enter 'N'.

**Note:** A pack is a set of applications requesting a system or subsystem of microwave links which are related to the extent that they cannot or must not operate independently and so must all have the same grant date and construction deadline. All applications intended to be part of a pack should be filed together with the other applications in the pack, on the same day (the initial filing date of the pack). Applications that are part of a pack may also be filed singly, as a late addition to the pack.

In order to incorporate new paper-filed applications into a new pack, all the paper-filed applications for the new pack must be filed together on the same day; it is recommended that they also be filed in the same envelope.

**Item 2** Complete this item only if the answer to Item 1 is 'Y'. If this application is being filed on the initial filing date of the pack and the Pack Registration Number has already been obtained on-line, or this application is being filed as a late addition to the pack, the Pack Registration Number must be entered in Item 2b. Otherwise, (i.e., if this application is being filed on the initial filing date of the pack and the Pack Registration Number has not been obtained on-line), enter in Item 2b a descriptive and unique pack name, not exceeding 50 characters, which the FCC will use to relate this application to other applications filed for the pack on the same day. The FCC will assign a new Pack Registration Number to the pack.

**Note:** It is recommended that a Pack Registration Number be obtained on-line prior to the initial filing of the pack, and entered in Item 2a, to facilitate pack identification and aggregation, and to avoid confusion.

**Item 3** Enter the type of operation code. Select only one code per application. A separate license is needed for each type of operation. Valid type of operation codes are:

- F - Permanent Fixed Point to Point
- M - Multiple Address System (MAS)
- T - Temporary Fixed/Mobile
- D - Digital Electronic Message Service (DEMS)
- 18 - 18 GHz Low Power
- 31 - 31 GHz Systems
- 38 - 38 GHz Systems

**Item 4** Enter the station class code that identifies the transmitter class. Refer to Table 1, located on page 16 of these instructions. The station class codes are as follows:

Fixed .....	FXO
Temporary Fixed .....	FX5
Mobile .....	MO
Mobile & Temporary Fixed .....	MO5

**Item 5** For Digital Electronic Message Services (DEMS) only: Enter the Standard Metropolitan Statistical Area (SMSA) for the license.

**Item 6** If this request is for a Modification, Renewal/Modification, or Amendment of a currently pending application, and it, along with all minor Modification or Amendment requests filed since the last major action granted by the Commission produces a cumulative effect that would equal or exceed the criteria for a major filing, enter 'Y'. Otherwise enter 'N'.

#### ►Control Point (Technical Point of Contact)

Fixed Microwave and Microwave Broadcast Auxiliary Services authorize only one control point per license. Therefore, this section must be completed only when a control point is to be added or modified. If you are adding a new control point (for a new license only), complete all items in this section. If you are modifying an existing control point, in addition to Item 7, complete only the items that have changed for the control point. The control point that is currently licensed under this call sign by the FCC will continue to be shown on the Authorization as is, unless a specific action is requested in this section.

**Item 7** This item indicates the action the filer wants the FCC to take on the specified control point. Enter 'A' for Add or 'M' for Modify.

**Item 8** Enter the street address, city or town, county, and state of the control point. Refer to FCC 601 Main Form Instructions, Appendix II, for a list of valid state, jurisdiction, and area abbreviations.

**Item 9** Enter the telephone number, including area code, where a person responsible for operation of the station or system can be reached.

#### ►Broadcast Auxiliary Only

This item applies to Microwave Broadcast Auxiliary Stations only. Complete either Item 10 or Item 11.

**Item 10** If there is an associated parent station, enter the facility identification number of the parent station (Item 10a), the Radio Service of the parent station (Item 10b), and the city and state of the parent station principal community (Item 10c). If there is more than one parent station, select one for the purpose of completing Item 10 (see note). The type of traffic, TV or aural, indicated by the Radio Service of the parent station indicated in Item 10b must be consistent with that indicated by the radio service code of the Broadcast Auxiliary Station requested under this application. Parent station Radio Service codes TV or TX must be entered for applied-for Broadcast Auxiliary radio service codes TS, TI, TB, TT, or TP. Parent station Radio Service codes AM, FM, or FX must be entered for applied-for codes Broadcast Auxiliary radio service codes AS, AI, or AB.

**Note:** Actions (i.e., renewals, assignments, cancellations, etc.) taken on the parent station will similarly effect the Broadcast Auxiliary Station.

**Item 11** If there is no associated parent station, certify that the applicant is a broadcast network entity and enter the state of primary operation (Item 11). By signing the FCC 601 Main Form filed in conjunction with this schedule, the applicant certifies that the statement listed in Item 11 is true, complete, correct, and made in good faith. Note that a broadcast network entity must have entered TV Pick-up, radio service code 'TP', in Item 1 of the FCC 601 Main Form.

#### ►Frequency Coordination Information

**Item 12** Enter 'Y' if frequency coordination has been completed for this application. Otherwise enter 'N'.

The remaining items in this section must be completed if the station is not self-coordinated.

**Item 13** Enter the frequency coordination number issued by the frequency coordinator for this application.

**Item 14** Enter the name of the frequency coordinator.

**Item 15** Enter the telephone number (including area code) of the frequency coordinator.

## Instructions for Schedule I Supplement 1 - Transmit Location Data

For purposes of these instructions and the use of this Supplement 1, permanent fixed point-to-point stations, Multiple Address System (MAS) stations that are not mobile-only, and Digital Electronic Message Service (DEMS) stations, are considered to have fixed transmit locations. Mobile-only Multiple Address System (MAS) stations, temporary fixed, 18 GHz Low Power stations, and 31.0-31.3 GHz and 38.6-40.0 GHz (non-auction, area operation) stations are considered to have area transmit locations.

A summary of Types of Operation Codes/Station Classes/Transmit Location Types/Path Codes is provided in Table 1, located on page 17 of these instructions.

### ►Transmit Location Information

**Item 1** Enter the code indicating the action requested. To add a new transmit location (for new licenses only), enter 'A'. If the new transmit location you are adding is a fixed transmit location, also complete Items 2 through 15. If the new transmit location you are adding is an area transmit location, also complete Items 2 and 3 and Items 16 through 26. If the modification is to delete existing data, enter CLR (clear) in the appropriate field (manual filed forms only).

**Note:** Part 101 Microwave Services and Part 74 Broadcast Auxiliary Microwave Services only authorize one transmit location per license.

To modify existing transmit location data (for existing licenses only), enter 'M'. If the existing transmit location is a fixed transmit location, complete Items 3 (NEPA), 4 (Quiet Zone - if required), 5 (FCC Antenna Structure Registration), and only those of Items 6 through 15 that are being modified (enter the new data only). If the existing transmit location is an area location, complete only those Items 2 and 3, and 16 through 26, that are being modified (enter the new data only). If the modification is to delete existing data, enter CLR (clear) in the appropriate field (manual filed forms only).

**Item 2** Enter the transmitter location or station name (20 characters maximum). If a new station is proposed, give it a name that relates to its location (up to 20 characters). For example, the name of a city, statistical area, town, or prominent geographical feature may be used. If necessary, abbreviate the name, without punctuation (e.g., Bald Mtn).

**Item 3** This item is required for compliance with the National Environmental Policy Act of 1969, as amended, 42 U.S.C. 4321-4335. See also Part 1, Subpart I of the FCC rules (47 CFR 1.1301 - 1.1319). This item must be answered, either 'Y' or 'N'.

Enter 'Y' if an FCC grant of this application will have a significant environmental effect. Section 1.1307 of the FCC rules lists categories of environmental effects for which applicants must file an environmental assessment. Otherwise enter 'N'. Examples of facilities that may have a significant effect on the environment include:

An antenna structure located in a residential area (as defined by applicable zoning laws) that will utilize high intensity aviation obstruction lighting

A facility located in an officially designated wilderness area, wildlife preserve, or floodplain

A facility that affects a site significant in American history

A facility whose construction involves extensive changes in surface features

Facilities, operations, or transmitters that would cause human exposure to levels of radio frequency radiation in excess of the limits as detailed in § 1.1310 and 2.1093 of the Commission's rules.

**Item 4** Applicants for stations located in one of the quiet zones listed below must notify the proper authority and indicate the date such notification was sent in Item 4.

1. National Radio Astronomy Observatory, Green Bank, Pocahontas County, West Virginia. The quiet zone is located within Virginia, West Virginia, and Garrett County, Maryland and bounded by 39 degrees 15' N on the north, 78 degrees 30' W on the east, 37 degrees 30' N on the south, and 80 degrees 30' W on the west. Contact the National Radio Astronomy Observatory, P.O. Box 2, Green Bank, West Virginia 24944.

2. Arecibo Observatory, Puerto Rico. The quiet zone consists of the islands of Puerto Rico, Desecheo, Mona, Vieques, and Culebra. Contact the Interference Office, Arecibo Observatory, Post Office Box 995, Arecibo, Puerto Rico 00613.

►Fixed Transmit Location

**IMPORTANT ANTENNA STRUCTURE REGISTRATION INFORMATION:** The Commission will evaluate your application based on the Antenna Structure Registration number you provide (if required). If you mistype your Antenna Structure Registration Number, or provide location data (latitude, longitude, elevation, structure heights) that is inconsistent with the data found in the Commission's Antenna Structure Registration database, your application will be dismissed.

**Item 5** This item is required if the action requested in Item 1 is 'A' or 'M'. If antenna structure registration is required, enter the seven digit FCC Antenna Structure Registration Number (shown on the structure's registration, FCC Form 854R). Otherwise, enter N/A (FAA notification is not required).

**Note:** Effective 7/1/96 the Commission requires owners to register certain structures. When required, antenna structures must be registered using FCC Form 854. The use of this FCC Form 601 to supply antenna structure information does not replace the requirement to register antenna structures on the FCC Form 854. For more information, see our web site at <http://www.fcc.gov/wtb/antenna>, call the National Call Center at 1-888-CALL-FCC (225-5322), or e-mail questions to [FCCITD@fcc.gov](mailto:FCCITD@fcc.gov).

**Note:** If, in accordance with 47 CFR § 17.14, Antenna Structure Registration is not required because the structure is shielded by existing structures or because it is fixed by its functional purpose, submit supporting documentation as an attachment to your application.

**Items 6 and 7** Respond to this item only if you indicated 'N/A' in Item 5. Enter the geographic coordinates of the location, referenced to the North American Datum of 1983 (NAD83). This information can be determined in many ways, including a GPS receiver, a 7.5 minute topographical quadrangle map of the area, or you may consult the city or county surveyor in your area. Topographical maps may be purchased from the U.S. Geological Survey, Washington, DC 20242 or from its office in Denver, Colorado 80225.

**Note:** Location coordinates (latitude and longitude) for sites in the Continental United States, Puerto Rico, the U.S. Virgin Islands, Alaska, Hawaii, American Samoa, and Guam must be referenced to the North American Datum of 1983 (NAD83). Coordinates for sites in the Northern Mariana Islands, Wake Island, and Midway Island should be referenced to the applicable local datums. If the source from which you obtain the coordinates still utilizes an older datum (i.e., NAD27, PRD40) you must convert to NAD83. Conversion routines are available through the internet at <http://www.fcc.gov/wtb/uls/nadcon.html>.

Enter the latitude using the format *DD-MM-SS.S*, where the degrees (*DD*) term can have a value in the range of 0 to 90, minutes (*MM*) can range from 0 to 59, and seconds (*SS.S*) can range from 0 to 59.9. In the lower right corner, specify the direction as either 'N' for North or 'S' for South.

Enter the longitude using the format *DDD-MM-SS.S*, where the degrees (*DDD*) term can have a value in the range of 0 to 180, minutes (*MM*) can range from 0 to 59, and seconds (*SS.S*) can range from 0 to 59.9. In the lower right corner, specify the direction as either 'E' for East or 'W' for West.

**Items 8-11** All applicants must supply a County in item 10 except when: (a) the city entered in Item 9 is an independent city that is not affiliated with a county (i.e., Baltimore, MD), or (b) the state entered in Item 11 does not have counties (i.e., Puerto Rico, Virgin Islands). If you indicated 'N/A' in Item 5, respond to items 8 through 11. These items identify the location by its address or, if there is no address, by a brief specific geographic description of the location, such as distance and direction from known landmarks, for example:

- 8) (Street) '5 km S of'
- 9) (City) 'Gettysburg'
- 10) (County) 'Adams'
- 11) (State) 'PA'

If the nearest city, county and state are located in a bordering county and/or state, enter a complete description of the location in item 8 as shown in the example. Complete item 9 if a city, town or village within the transmitter's county is nearby and complete items 10 and 11 with the county and state in which the coordinates are actually located, for example:

- 8) Summit Mtn near Palo Verde, Imperial County, CA
- 9)
- 10) La Paz
- 11) Arizona

P.O. Box numbers or geographic coordinates are not acceptable for Item 8. Refer to FCC 601 Main Form Instructions, Appendix II, for a list of valid state, jurisdiction, and area abbreviations.

**Note:** For a Multiple MAS Master or DEMS Nodal station, if the only sub-type of operation codes to be used at the station are Multiple Two-Way Master-Remote/Nodal-User or Multiple One-Way Outbound Master or both, there is no antenna structure at the coordinates specified in Items 6 and 7, so no antenna registration is required: enter 'NA' in Item 5.

**Item 12** Respond to this item only if you indicated 'N/A' in Item 5. Enter the elevation above mean sea level (AMSL) of the ground at the antenna location. Enter this item in meters, rounded to the nearest tenth. Refer to letter 'a' in the Antenna Structure Sample Figures, located at the end of the FCC 601 Schedule I instructions. This information can be determined in many ways, including a GPS receiver, 7.5 minute topographical quadrangle map of the area, or you may consult the city or county surveyor in your area. Topographical maps may be purchased from the U.S. Geological Survey, Washington, DC 20242 or from its office in Denver, Colorado 80225.

**Item 13** Respond to this item only if you indicated 'N/A' in Item 5. Enter the code for the type of structure on which the antenna is or will be mounted from the following valid structure types:

<u>Code</u>	<u>Definition</u>
B	Building with a side mounted antenna
BANT	Building with Antenna on Top
BMAST	Building with Mast/Antenna on Top
BPIPE	Building with Pipe/Antenna on Top
BPOLE	Building with Pole/Antenna on Top
BRIDG	Bridge
BTWR	Building with Tower/Antenna on Top
MAST	Self-Support Structure
NNTANN*	Antenna Tower Array
NTOWER**	Multiple Structures
PIPE	Any Type of Pipe
POLE	Any Type of Pole, used only to mount an antenna
RIG	Oil or Other Type of Rig
SILO	Any Type of Silo
STACK	Smoke Stack
TANK	Any Type of Tank (Water, Gas, etc.)
TOWER	A Free Standing Guyed Structure Used for Communications Purposes
TREE	When Used as a Support for an Antenna
UPOLE	Utility Pole/Tower Used to Provide Service (Electric, Telephone, etc.)

\* Valid Tower Arrays. Code definition: The first NN indicates the number of towers in an array. The second NN is optional and indicates the position of that tower in the array (e.g., 3TA2 would identify the second tower in a three tower array).

\*\* Valid Multiple Structures. Code Definition: The N indicates the number of structures where multiple antenna structures are present in a multiple structure (Ex.: 2TOWER, 3TANK, 6BANT, 7BMAST).

**Item 14** Respond to this item only if you indicated 'N/A' in Item 5. Enter the height above ground level to the highest point of the supporting structure only. Enter this item in meters, rounded to the nearest tenth. For example, if the antenna structure consists of a building/tower combination, include any elevator shaft, flag pole, or penthouse in the overall support structure height, but not the antenna, tower, pole, or mast. If the antenna structure is a tower only, include the height of the tower but not the antenna. Refer to letter 'b' in the Antenna Structure Sample Figures, located at the end of the FCC 601 Schedule I instructions.

**Item 15** Respond to this item only if you indicated 'N/A' in Item 5. Enter the overall height above ground level of the entire antenna structure to the highest point, including any appurtenances. Enter this item in meters, rounded to the nearest tenth. You must include antennas, dishes, obstruction lighting, etc. Refer to letter 'c' in the Antenna Structure Sample Figures, located at the end of the FCC 601 Schedule I instructions.



## •Area Transmit Location

**Item 16** Enter the appropriate area of operation code using the table below. Additional mobile location fields must be completed according to the area of operation code chosen. Refer to the table to determine which additional fields are required for the chosen area of operation code.

**Note:** If area operation will cover multiple counties, use area of operation code 'O' and specify all applicable counties in Item 26.

### Area of Operation Codes and Required Data Values

Code	Description	Additional Schedule I Data Elements Required for each Area of Operation Code	Item Numbers
P	KMRA around a centerpoint (circular area of operation)	Temporary Fixed or Mobile Radius, Latitude, Longitude, City*, County**, State**	17, 18, 19, 22, 23, 24
R	Rectangular Area of Operation	Latitude, Longitude, Maximum Latitude, Maximum Longitude	18, 19, 20, 21
N	Nationwide including Hawaii Alaska & US Territories		
U	Continental US		
C	County Wide Area of Operation	County, State	23, 24
S	Statewide Area of Operation	State	24
O	Other - Narrative	Description	26

\*Kilometers Radius

\*\* Complete as applicable - refer to instructions for applicability.

**Item 17** Complete this item for area transmit locations for a circular area of operation defined by a radius around a specified set of coordinates (i.e., 'P' was entered for Item 16). Enter the radius of the circular area of operation around the geographic coordinates entered in Items 18 and 19. Enter this in kilometers, rounded to the nearest tenth.

**Note:** For MAS Mobile Master (mobile-only), indicated by type of operation code 'M' on the main Schedule I and sub-type of operation Mobile Master in Item 6a of Supplement 2 - enter 40.2.

For 18 GHz Low Power, indicated by type of operation code '18' on the main Schedule I - enter 28.2.

**Items 18 and 19** If 'P' was entered in Item 16, enter the geographic coordinates (latitude and longitude) of the location of the center of the circular area of operation. If 'R' was entered in Item 16, enter the minimum geographic coordinates of the rectangular area of operation (usually the coordinates of the southeastern corner of the rectangle).

Coordinates entered must be referenced to the North American Datum of 1983 (NAD83). This information can be determined in many ways, including a GPS receiver, a 7.5 minute topographical quadrangle map of the area, or you may consult the city or county surveyor in your area. Topographical maps may be purchased from the U.S. Geological Survey, Washington, DC 20242 or from its office in Denver, Colorado 80225.

**Note:** Location coordinates (latitude and longitude) for sites in the Continental United States, Puerto Rico, the U.S. Virgin Islands, Alaska, Hawaii, American Samoa, and Guam must be referenced to the North American Datum of 1983 (NAD83). Coordinates for sites in the Northern Mariana Islands, Wake Island, and Midway Island should be referenced to the applicable local datums. If the source from which you obtain the coordinates still utilizes an older datum (i.e., NAD27, PRD40) you must convert to NAD83. Conversion routines are available through the internet at <http://www.fcc.gov/wtb/uls/nadcon.html>.

Enter the latitude using the format *DD-MM-SS.S*, where the degrees (*DD*) term can have a value in the range of 0 to 90, minutes (*MM*) can range from 0 to 59, and seconds (*SS.S*) can range from 0 to 59.9. In the lower right corner, specify the direction as either 'N' for North or 'S' for South.

Enter the longitude using the format *DDD-MM-SS.S*, where the degrees (*DDD*) term can have a value in the range of 0 to 180, minutes (*MM*) can range from 0 to 59, and seconds (*SS.S*) can range from 0 to 59.9. In the lower right corner, specify the direction as either 'E' for East or 'W' for West.

**Items 20 and 21** Complete this item for area transmit locations for a rectangular area of operation defined by minimum and maximum geographic coordinates (latitude and longitude), i.e., if code 'R' was entered in Item 16. Enter the maximum geographic coordinates (latitude and longitude) of the rectangular area of operation (usually the coordinates of the northwestern corner of the rectangle).

Coordinates entered must be referenced to the North American Datum of 1983 (NAD83). This information can be determined in many ways, including a GPS receiver, a 7.5 minute topographical quadrangle map of the area, or you may consult the city or county surveyor in your area. Topographical maps may be purchased from the U.S. Geological Survey, Washington, DC 20242 or from its office in Denver, Colorado 80225.

**Note:** Location coordinates (latitude and longitude) for sites in the Continental United States, Puerto Rico, the U.S. Virgin Islands, Alaska, Hawaii, American Samoa, and Guam must be referenced to the North American Datum of 1983 (NAD83). Coordinates for sites in the Northern Mariana Islands, Wake Island, and Midway Island should be referenced to the applicable local datums. If the source from which you obtain the coordinates still utilizes an older datum (i.e., NAD27, PRD40) you must convert to NAD83. Conversion routines are available through the internet at <http://www.fcc.gov/wtb/uls/nadcon.html>.

Enter the latitude using the format *DD-MM-SS.S*, where the degrees (*DD*) term can have a value in the range of 0 to 90, minutes (*MM*) can range from 0 to 59, and seconds (*SS.S*) can range from 0 to 59.9. In the lower right corner, specify the direction as either 'N' for North or 'S' for South.

Enter the longitude using the format *DDD-MM-SS.S*, where the degrees (*DDD*) term can have a value in the range of 0 to 180, minutes (*MM*) can range from 0 to 59, and seconds (*SS.S*) can range from 0 to 59.9. In the lower right corner, specify the direction as either 'E' for East or 'W' for West.

**Item 22** If 'P' was entered in Item 16, enter the city or town name of the location. This item is required only if Item 23 (county) is blank.

**Item 23** If 'P' or 'C' was entered in Item 16, enter the county of the location. This item is always required for area of operation code 'C'. This item is also required for area of operation code 'P' except when: (a) the city entered in Item 22 is an independent city that is not affiliated with a county (i.e., Baltimore, MD), or (b) the state entered in Item 24 does not have counties (i.e., Puerto Rico, Virgin Islands).

**Item 24** If 'P', 'C', or 'S' was entered in Item 16, enter the state of the location. Refer to FCC 601 Main Form Instructions, Appendix II, for a list of valid state, jurisdiction, and area abbreviations.

**Item 25** This item helps the FCC to determine if it will initiate coordination procedures with the Government of Canada. If any part of the mobile location is North of Line A, enter 'Y' in the appropriate field. If any part of the mobile location is East of Line C (applies to stations located in Alaska only), enter 'Y' in the appropriate field. In the event the applicant needs to submit additional information regarding coordination of a channel assignment with the Government of Canada, this should be attached as an exhibit which references Schedule I Item 25. If 'N' is entered for both questions, the FCC will not initiate coordination procedures with the Government of Canada and your area of operation will be excluded from these border areas. Refer to FCC 601 Main Form Instructions, Appendix I, for a list of counties, by state, having areas North of Line A.

**Item 26** If the response to Item 16 was 'O', enter a description of the area of operation. P.O. Box numbers or geographic coordinates are not acceptable for Item 26. The use of Other-Narrative should only be used if the area of operation cannot be described by using one of the other codes. Area of operation provided as Other-Narrative may delay processing of the application.

## Instructions for Schedule I Supplement 2 - Path Data

This Supplement must be completed only when a transmission path is to be added, modified, or deleted. For purposes of filing this application, a 'path' is defined as the transmitting antennas (along with their height, orientation, and polarization), the final receiver (if present) and any associated passive repeaters. File as many copies of Supplement 4 (Frequency Data) as necessary to describe all transmitters and frequencies associated with each transmission path. Transmission paths are linked on Supplement 2 and Supplement 4 by Item 2, path number, located respectively on each supplement.

A Supplement 2 must be completed for each transmission path added, modified, or deleted. If you are adding a new transmission path, complete a Supplement 2 for each transmission path to be added, and a Supplement 4 (Frequency Data) for all transmitters and frequencies on the new path. If you are modifying a transmission path, in addition to Items 1 through 5, complete only the items that have changed for each transmission path. If you are deleting a transmission path, only Items 1 through 5 are required. Transmission paths that are currently licensed under this call sign by the FCC will continue to be shown on the Authorization as is, unless a specific action is requested in this Supplement.

**Note:** If a path is deleted, the transmitter and frequency data that is linked to the path will automatically be deleted and will no longer be part of your authorization.

Refer to Table 2 at the end of these instructions for assistance in filling out Supplements 3 and 4. Table 2 indicates the fields and their values that are applicable for various path types. For Permanent Fixed Point-to-Point paths, enter the actual used value for each item on Supplement 2, or leave blank if not applicable.

### ►Transmit Location

This section identifies the transmit location and path number of the transmission paths. Transmit location information is entered on Supplement 1 of Schedule I. Path information is entered in the remaining sections of this Supplement 2.

Item 1 Enter the transmit location name as entered in Item 2 of Supplement 1.

Item 2 Enter the path number. If the path has been previously licensed under this call sign by the Commission, enter its FCC-assigned path number (located on the Authorization). If you are adding a new path to the transmit location as part of this filing, assign a code to represent the path. Number each new path consecutively, beginning each assigned path number with 'P' to indicate it is a path and end with a number to uniquely identify it (e.g., P1, P2, P3, etc.). A single transmitter can have multiple paths. Path numbers need only be unique for each transmitting antenna and final receiver (if present). The FCC will assign an official number to the new path, which will appear on the Authorization.

Items 3 and 4 Enter the coordinates of the transmit location, as entered in Items 6 and 7 or Items 18 and 19 of Supplement 1.

Item 5 This item indicates the action the filer wants the FCC to take on the path specified in Items 1 through 4. Enter only one action per copy of Supplement 2. Enter 'A' to Add a New Path, 'M' to Modify an Existing Path, or 'D' to Delete an Existing Path.

If 'A' is entered, complete all remaining items on this supplement (Items 6 through 37). Also complete as many copies of Supplement 4 (Frequency Data) as necessary to describe all transmitters and frequencies associated with the new path. If 'M' is entered, in addition to completing Items 1 through 5, complete only those Items of 6 through 37 that are being modified (enter new data only). If the modification also affects transmitters or frequencies, also complete as many copies of Supplement 4 as necessary to describe the transmitter or frequency modifications (enter new data only). Modification of a path will affect all parameters of that path. If 'D' is entered, only complete Items 1 through 5. Deletion of a path will delete the entire path, including all frequencies.

**Note:** To add one path and modify another, complete two Supplement 2 forms.

Item 6a For MAS (Multiple Address System) and DEMS (Digital Electronic Message Service) stations only, represented by type of operation codes M and D, entered respectively, in Item 3 on main Schedule I. This item further classifies various MAS and DEMS operations. Enter the sub-type of operation codes for the path. Enter only one sub-type of operation code for each path.

#### Fixed Two-way MAS Master-Remote or DEMS Nodal-User

Normal fixed MAS master-remote or DEMS nodal-user two-way operation, with single fixed master/nodal, located at the coordinates stated in Items 6 and 7 of Supplement 1, transmitting to four or more MAS remotes or any number of DEMS users, and remotes/users transmitting back to master/nodal. Two Supplement 2s must be filed for this sub-type, one for the master/nodal-to-remotes/user path, and one for the remotes/user-to-master/nodal path.

Fixed One-way Outbound MAS Master (MAS only)

A fixed MAS master, located at the coordinates stated in Items 6 and 7 of Supplement 1, transmitting to four or more receive-only remotes. Only one Supplement 2 must be filed for this sub-type for the master-to-remote path.

Fixed One-way Inbound MAS Master (MAS only)

Four or more remotes transmitting to a receive-only fixed master, located at the coordinates stated in Items 6 and 7 of Supplement 1. Only one Supplement 2 must be filed for this sub-type for the remote-to-user path.

Multiple Two-way MAS Master-Remote or DEMS Nodal-User (DEMS only permitted under waiver)

Multiple MAS masters or DEMS nodals at unspecified locations within an area around the coordinates stated in Items 6 and 7 of Supplement 1, transmitting to at least four multiple receive-only MAS remotes or any number of DEMS users and remotes/users transmitting back to multiple masters/nodals. Two Supplement 2s must be filed for this sub-type, one for the master/nodal-to-remote/user path, and one for the remote/user-to-master/nodal path.

Multiple One-way Outbound MAS Master (MAS only)

Multiple MAS masters at unspecified locations within an area around the coordinates stated in Items 6 and 7 of Supplement 1. Only one Supplement 2 must be filed for this sub-type for the master-to-remote path.

Mobile MAS Master (Mobile-only) (MAS only)

Mobile master(s) at unspecified locations within an area described in items 17-19 of Supplement 1. A path code should not be filed for this subtype (see the Note in Item 6b).

Mobile MAS Master (Non-Mobile-only) (MAS only)

Mobile master(s) added to the authorization of an existing MAS station and associated with the fixed location of that existing MAS station. A path code should not be filed for this subtype (see the Note in Item 6b).

**Notes** For MAS, sub-types of operation Fixed Two-way MAS Master-Remote, Fixed One-way Outbound MAS Master, and Fixed One-way Inbound MAS Master must be licensed separately from each other. Do not enter these sub-types of operation together on the same license. MAS Multiple Two-way MAS Master-Remote, Multiple One-way Outbound MAS Master, and Mobile MAS Master sub-types of operation may be licensed by themselves or in conjunction with any valid MAS sub-type of operation code. A Mobile MAS Master sub-type can only be used in conjunction with other sub-types if they operate on the same frequency.

For DEMS, Fixed Two-way DEMS Nodal-User or Multiple Two-way DEMS Nodal-User sub-types of operation may be licensed either by themselves or in combination with each other.

**Item 6b** Enter the path code (only one for each path) for the MAS/DEMS type of operation. See Table 1 for a list of path codes.

**Note:** Path codes are not collected for the following types of operation, as their path codes are predefined and shown within the parentheses: Permanent Fixed Point to Point (PP), Temporary Fixed/Mobile (MM), Multiple Address System (MAS) Mobile Only (MM), 18 GHz Low Power (MM), 31 GHz (MM), 38 GHz (MM).

► **Transmit Antenna**

**Items 7 and 8** Enter the name of the manufacturer and model number of the transmit antenna.

**Item 9** Enter the height above ground to the center of the final radiating element. Enter this item in meters, rounded to the nearest tenth. For a parabolic dish antenna, this is the height to the center of the dish. For a periscope antenna system, this is the height to the center of the reflector. In all cases, the height should not exceed the overall height of the structure with appurtenances.

**Item 10** Enter the beamwidth (degrees, rounded to one decimal place) of the transmitting antenna. That is, enter the angular distance between the half power points of the antenna's main lobe in the horizontal plane. For omnidirectional antennas, enter 360.

**Item 11** Enter the gain of the transmitting antenna over an isotropic radiator in dBi, rounded to one decimal place.

**Items 12-14** If a diversity antenna is used, complete Items 12 through 14 with the antenna height above ground level, beamwidth, and gain for the diversity antenna. See instructions for Items 9 through 11.

**Item 15** For fixed stations only, enter the elevation angle of the antenna (rounded to the nearest degree), measured in degrees from the horizontal up to the center line of radiation of the antenna. If the antenna tilts down (depression angle), indicate with a minus sign.

**Item 16** Indicate polarization with the following codes:

- V – Vertical
- H – Horizontal
- R – Right-hand circular
- L – Left-hand circular
- S – Variable

For linear polarization other than horizontal or vertical, the polarization should be stated in degrees measured from the vertical, with angles between 0 and +89 degrees denoting the outgoing electric field vector displacement in the clockwise direction, and angles between 0 and -89 degrees denoting the outgoing electric field vector displacement in the counterclockwise direction. For a periscope antenna system, enter the expected polarization of the signal radiated off the reflector.

**Item 17** Enter the azimuth, clockwise from True North (degrees, rounded to one decimal place), from the station to the receive site or to the first passive repeater, if any, on this transmission path.

For omnidirectional antennas, enter 360. For a directional antenna without a fixed azimuth – as with temporary, mobile, Multiple Address Remote, or Digital Electronic Message stations – enter 999.

**Item 18** Enter the height and width of the periscope reflector, if used. Enter this item in meters, rounded to the nearest tenth.

**Item 19** Enter the separation distance between the transmit antenna and the periscope reflector, if used. Enter this item in meters, rounded to the nearest tenth.

**Item 20** If this path includes a passive repeater, enter 'Y'. Supplement 3 requests information about passive repeaters. If none, enter 'N'.

**Item 21** If the final receiver is located outside of the United States, enter the name of the country and attach an exhibit explaining the circumstances.

**Item 22** If the application proposes installation or reorientation of a transmitting antenna that operates with a frequency in the 5925-6425 MHz band and is aimed within 2 degrees of the geostationary satellite orbit, enter 'Y' and submit, as an exhibit, a justification for waiver. Otherwise, enter 'N'.

#### ►Final Receiver

**Item 23** Enter the receiver location name (20 characters maximum). If a new station is proposed, give it a name that relates to its location (up to 20 characters). For example, the name of a city, statistical area, town, or prominent geographical feature may be used. If necessary, abbreviate the name, without punctuation (e.g., Bald Mtn). If a new station is proposed, give it a name that relates to its location. For example, the name of a city, statistical area, town, or prominent geographical feature may be used. If necessary, abbreviate the name, without punctuation (e.g., Bald Mtn).

**Item 24** Enter the call sign of the station at the far end of the transmission path. This is the station that will receive the transmissions of this path on the frequencies entered in Item 6 and 7 of Supplement 4. For a receive-only station or a new station, leave this item blank.

**Items 25 and 26** Enter the geographic coordinates of the receive site, referenced to the North American Datum of 1983 (NAD83). This information can be determined in many ways, including a GPS receiver, a 7.5 minute topographical quadrangle map of the area, or you may consult the city or county surveyor in your area. Topographical maps may be purchased from the U.S. Geological Survey, Washington, DC 20242 or from its office in Denver, Colorado 80225.

**Note:** Location coordinates (latitude and longitude) for sites in the Continental United States, Puerto Rico, the U.S. Virgin Islands, Alaska, Hawaii, American Samoa, and Guam must be referenced to the North American Datum of 1983 (NAD83). Coordinates for sites in the Northern Mariana Islands, Wake Island, and Midway Island should be referenced to the applicable local datums. If the source from which you obtain the coordinates still utilizes an older datum (i.e., NAD27, PRD40) you must convert to NAD83. Conversion routines are available through the internet at <http://www.fcc.gov/wtb/uls/nadcon.html>.

Enter the latitude using the format DD-MM-SS.S, where the degrees (DD) term can have a value in the range of 0 to 90, minutes (MM) can range from 0 to 59, and seconds (SS.S) can range from 0 to 59.9. In the lower right corner, specify the direction as either 'N' for North or 'S' for South.

Enter the longitude using the format *DDD-MM-SS.S*, where the degrees (*DDD*) term can have a value in the range of 0 to 180, minutes (*MM*) can range from 0 to 59, and seconds (*SS.S*) can range from 0 to 59.9. In the lower right corner, specify the direction as either 'E' for East or 'W' for West.

Item 27 Enter the ground elevation above mean sea level of the receive site. Enter this item in meters, rounded to the nearest tenth.

Items 28 and 29 Enter the name of the manufacturer and model number of the receiving antenna.

Item 30 Enter the height above ground level to the center of the receiving antenna. Enter this item in meters, rounded to the nearest tenth. For a parabolic dish antenna, this is the height to the center of the dish. For a periscope antenna system, this is the height to the center of its reflector.

Item 31 Enter the beamwidth (degrees, rounded to one decimal place) of the receiving antenna. That is, enter the angular distance between the half power points of the antenna's major lobe in the horizontal plane. For omnidirectional antennas, enter 360.

Item 32 Enter the gain of the receiving antenna over an isotropic radiator in dBi, rounded to one decimal place.

Item 33 Enter the height above ground level to the center of the diversity receiving antenna. Enter this item in meters, rounded to the nearest tenth. For a parabolic dish antenna, this is the height to the center of the dish. For a periscope antenna system, this is the height to the center of its reflector.

Item 34 Enter the beamwidth (degrees, rounded to one decimal place) of the diversity receiving antenna. That is, enter the angular distance between the half power points of the antenna's major lobe in the horizontal plane. For omnidirectional antennas, enter 360.

Item 35 Enter the gain of the diversity receiving antenna over an isotropic radiator in dBi, rounded to one decimal place.

Item 36 Enter the height and width of the periscope reflector, if used. Enter this item in meters, rounded to the nearest tenth.

Item 37 Enter the separation distance between the receive antenna and the periscope reflector, if used. Enter this item in meters, rounded to the nearest tenth.

## Instructions for Schedule I Supplement 3 - Passive Repeaters (PR)

This Supplement must be completed only when a passive repeater is to be added, modified, or deleted. Each transmission path may have one or more passive repeaters. Each Supplement 3 describes one passive repeater. If you have more than one passive repeater, submit an additional Supplement 3 for each. If you are adding a new passive repeater, complete a Supplement 3 for each passive repeater to be added. If you are modifying an existing passive repeater, in addition to Items 1 through 7, 9 (FCC Antenna Structure Registration), and 24 (NEPA), complete only the items that have changed for each passive repeater. If you are deleting a passive repeater, only Items 1 through 6 are required. Passive repeaters that are currently licensed under this call sign by the FCC will continue to be shown on the Authorization as is, unless a specific action is requested in this Supplement.

### ► Transmit Location

This section identifies the transmit location and path numbers on which the passive repeater is located. Transmit location information is entered on Supplement 1 of Schedule I. Path information is entered on Supplement 2 of Schedule I.

Item 1 Enter the transmit location name as entered in Item 2 of Supplement 1.

Item 2 Enter the path number on which the passive repeater is located, as entered on Supplement 2, Item 2.

Items 3 and 4 Enter the coordinates of the transmit location, as entered in Items 6 and 7.

Item 5 This item indicates the action the filer wants the FCC to take on the specified passive repeater. Enter 'A' for Add, 'M' for Modify, or 'D' for Delete.

Enter only one action per copy of Supplement 3. To add one passive repeater and modify another, complete two Supplement 3 forms. At least one Supplement 2, Path Data, must be filed if you add or modify a passive repeater. Deletion of a path (Supplement 2) will delete the entire path, including all passive repeaters on that path.

### ► Passive Repeater Location

**IMPORTANT ANTENNA STRUCTURE REGISTRATION INFORMATION:** The Commission will evaluate your application based on the Antenna Structure Registration number you provide (if required). If you mistype your Antenna Structure Registration Number, or provide location data (latitude, longitude, elevation, structure heights) that is inconsistent with the data found in the Commission's Antenna Structure Registration database, your application will be dismissed.

Item 6 If the passive repeater has been previously licensed under this call sign by the FCC, enter its FCC-assigned passive repeater identification number (located on the Authorization).

Item 7 The passive repeater sequence number is used to identify the sequence of passive repeaters on a specific path. PR#1 would receive the signal from the transmitter and PR#2 would receive the signal from PR#1, and so forth. For a new passive repeater, or to reassign the sequence number of an existing passive repeater, enter the new passive repeater sequence number.

**Note:** If a passive repeater sequence is reassigned, a Supplement 3 must be completed and attached for every passive repeater on the path that is being assigned a new passive repeater sequence number.

Item 8 Enter the passive repeater location name (20 characters maximum). If a new station is proposed, give it a name that relates to its location (up to 20 characters). For example, the name of a city, statistical area, town, or prominent geographical feature may be used. If necessary, abbreviate the name, without punctuation (e.g., Bald Mtn). If a new station is proposed, give it a name that relates to its location. For example, the name of a city, statistical area, town, or prominent geographical feature may be used. If necessary, abbreviate the name, without punctuation (e.g., Bald Mtn).

Item 9 If antenna structure registration is required and the owner of the structure has registered the structure with the FCC, enter the seven-digit FCC Antenna Structure Registration Number (shown on the structure's registration, FCC Form 854R). Otherwise, enter 'N/A' (FAA notification is not required).

**Note:** Effective 7/1/96 the Commission requires owners to register certain structures. When required, antenna structures must be registered using FCC Form 854. The use of this FCC Form 601 to supply antenna structure information does not replace the requirement to register antenna structures on the FCC Form 854. For more information, see our web site at <http://www.fcc.gov/wtb/antenna>, call the National Call Center at 1-888-CALL-FCC (225-5322), or e-mail questions to [FCCITD@fcc.gov](mailto:FCCITD@fcc.gov).

**Items 10 and 11** Respond to this item only if you indicated 'N/A' in Item 9. Enter the geographic coordinates of the passive repeater, referenced to the North American Datum of 1983 (NAD83). This information can be determined in many ways, including a GPS receiver, a 7.5 minute topographical quadrangle map of the area, or you may consult the city or county surveyor in your area. Topographical maps may be purchased from the U.S. Geological Survey, Washington, DC 20242 or from its office in Denver, Colorado 80225.

**Note:** Location coordinates (latitude and longitude) for sites in the Continental United States, Puerto Rico, the U.S. Virgin Islands, Alaska, Hawaii, American Samoa, and Guam must be referenced to the North American Datum of 1983 (NAD83). Coordinates for sites in the Northern Mariana Islands, Wake Island, and Midway Island should be referenced to the applicable local datums. If the source from which you obtain the coordinates still utilizes an older datum (i.e., NAD27, PRD40) you must convert to NAD83. Conversion routines are available through the internet at <http://www.fcc.gov/wtb/uls/nadcon.html>.

Enter the latitude using the format *DD-MM-SS.S*, where the degrees (*DD*) term can have a value in the range of 0 to 90, minutes (*MM*) can range from 0 to 59, and seconds (*SS.S*) can range from 0 to 59.9. In the lower right corner, specify the direction as either 'N' for North or 'S' for South.

Enter the longitude using the format *DDD-MM-SS.S*, where the degrees (*DDD*) term can have a value in the range of 0 to 180, minutes (*MM*) can range from 0 to 59, and seconds (*SS.S*) can range from 0 to 59.9. In the lower right corner, specify the direction as either 'E' for East or 'W' for West.

**Item 12** Respond to this item only if you indicated 'N/A' in Item 9. Enter the elevation above mean sea level (AMSL) of the ground at the antenna location. Enter this item in meters, rounded to the nearest tenth. Refer to letter 'A' in the Antenna Structure Sample Figures, located at the end of the FCC 601 Schedule I instructions. This information can be determined in many ways, including a GPS receiver, 7.5 minute topographical quadrangle map of the area, or you may consult the city or county surveyor in your area. Topographical maps may be purchased from the U.S. Geological Survey, Washington, DC 20242 or from its office in Denver, Colorado 80225.

**Item 13** Respond to this item only if you indicated 'N/A' in Item 9. Enter the code for the type of structure on which the antenna is or will be mounted from the following valid structure types:

<u>Code</u>	<u>Definition</u>
B	Building with a side mounted antenna
BANT	Building with Antenna on Top
BMAST	Building with Mast/Antenna on Top
BPIPE	Building with Pipe/Antenna on Top
BPOLE	Building with Pole/Antenna on Top
BRIDG	Bridge
BTWR	Building with Tower/Antenna on Top
MAST	Self-Support Structure
NNTANN*	Antenna Tower Array
NTOWER**	Multiple Structures
PIPE	Any Type of Pipe
POLE	Any Type of Pole, used only to mount an antenna
RIG	Oil or Other Type of Rig
SILO	Any Type of Silo
STACK	Smoke Stack
TANK	Any Type of Tank (Water, Gas, etc.)
TOWER	A Free Standing Guyed Structure Used for Communications Purposes
TREE	When Used as a Support for an Antenna
UPOLE	Utility Pole/Tower Used to Provide Service (Electric, Telephone, etc.)

\* Valid Tower Arrays. Code definition: The first NN indicates the number of towers in an array. The second NN is optional and indicates the position of that tower in the array (e.g., 3TA2 would identify the second tower in a three tower array).

\*\* Valid Multiple Structures. Code Definition: The N indicates the number of structures where multiple antenna structures are present in a multiple structure (Ex.: 2TOWER, 3TANK, 6BANT, 7BMAST).

**Item 14** Respond to this item only if you indicated 'N/A' in Item 9. Enter the height above ground level to the highest point of the supporting structure only. Enter this item in meters, rounded to the nearest tenth. For example, if the antenna structure consists of a building/tower combination, include any elevator shaft, flag pole, or penthouse in the overall support structure height, but not the antenna, tower, pole, or mast. If the antenna structure is a tower only, include the height of the tower but not the antenna. Refer to letter 'b' in the Antenna Structure Sample Figures, located at the end of the FCC 601 Schedule I instructions.



Item 15 Respond to this item only if you indicated 'N/A' in Item 9. Enter the overall height above ground level of the entire antenna structure to the highest point, including any appurtenances. Enter this item in meters, rounded to the nearest tenth. You must include antennas, dishes, obstruction lighting, etc. Refer to letter 'c' in the Antenna Structure Sample Figures, located at the end of the FCC 601 Schedule I instructions.

Items 16 and 17 Enter the name of the manufacturer and model number of the passive repeater antenna.

Item 18 Enter the height above ground level to the center of the reflector or back-to-back dishes. Enter this item in meters, rounded to the nearest tenth.

Items 19 and 20 For back-to-back dishes, enter the gain of the transmitting (TX) and receiving (RX) antennas, over an isotropic radiator in dBi, rounded to one decimal place.

Item 21 Enter the height and width of the periscope reflector, if used. Enter this item in meters, rounded to the nearest tenth.

Item 22 Indicate polarization with the following codes:

- V - Vertical
- H - Horizontal
- R - Right-hand circular
- L - Left-hand circular
- S - Variable

For linear polarization other than horizontal or vertical, the polarization should be stated in degrees measured from the vertical, with angles between 0 and +89 degrees denoting the outgoing electric field vector displacement in the clockwise direction, and angles between 0 and -89 degrees denoting the outgoing electric field vector displacement in the counterclockwise direction. For a periscope antenna system, enter the expected polarization of the signal radiated off the reflector.

Item 23 Enter the azimuth, clockwise from True North (degrees, rounded to one decimal place), from this passive repeater to the receive site or to the next passive repeater, if any, on this transmission path.

Item 24 This item is required for compliance with the National Environmental Policy Act of 1969, as amended, 42 U.S.C. 4321-4335. See also Part 1, Subpart I of the FCC rules (47 CFR 1.1301 - 1.1319). This item must be answered, either 'Y' or 'N'.

Enter 'Y' if an FCC grant of this application will have a significant environmental effect. Section 1.1307 of the FCC rules lists categories of environmental effects for which applicants must file an environmental assessment. Otherwise enter 'N'. Examples of facilities that may have a significant effect on the environment include:

An antenna structure located in a residential area (as defined by applicable zoning laws) that will utilize high intensity aviation obstruction lighting

A facility located in an officially designated wilderness area, wildlife preserve, or floodplain

A facility that affects a site significant in American history

A facility whose construction involves extensive changes in surface features

Facilities, operations, or transmitters that would cause human exposure to levels of radio frequency radiation in excess of the limits as detailed in § 1.1310 and 2.1093 of the Commission's rules.

## Instructions for Schedule I Supplement 4 - Frequency Data

If the application purpose indicated on the FCC 601 Main Form is New, file as many Supplement 4's (Frequency Data) as necessary to describe all transmitters and frequencies associated with each transmission path represented by a Supplement 2 (Path Data). Frequency data for each transmission path must be listed on a separate Supplement 4 (refer to the instructions on Supplement 2 for information about entering and assigning paths and path numbers).

If the application purpose indicated on the FCC 601 Main Form is Amendment, Modification, or Renewal/Modification, complete as many Supplement 4's (Frequency Data) as necessary to describe all frequency data being amended, added, modified, or deleted. Transmitters and frequency data for each transmission path must be listed on a separate Supplement 4 (refer to the instructions for Supplement 2 for information about entering and assigning paths and path numbers). If the proposed amendment/modification does not affect any transmitter or frequency data, it is not necessary to complete Supplement 4. Similarly, if the proposed amendment/modification changes transmitter or frequency data but does not affect any transmit path data, it is not necessary to complete Supplement 2.

**Note:** Deletion of a path using Supplement 2 (Path Data) will delete the entire path, including all the transmitters and frequencies on that path. Modification of a path using Supplement 2 (Path Data) will affect all transmitters and frequencies associated with that path.

Refer to Table 2 at the end of these instructions for assistance in filling out Supplements 4. Table 2 indicates the fields and their values that are applicable for various path types.

### ►Transmitter Location Information

This section identifies the transmit location and path for the listed transmitters and frequency data. Transmit location information is entered on Supplement 1 of Schedule I. Path data information is entered on Supplement 2 of Schedule I.

Item 1 Enter the transmit location name as entered in Item 2 of Supplement 1.

Item 2 Enter the path number, as entered in Item 2 of the corresponding Supplement 2 (Path Data). Paths are defined in the instructions for Supplement 2 (Path Data) - Refer to the instructions for Supplement 2, Item 2 for information about entering and assigning path numbers.

Items 3 and 4 Enter the coordinates of the transmit location, as entered in Items 6 and 7 or Items 18 and 19 of Supplement 1.

### ►Frequency Information

This section must be completed only when frequencies are to be added, modified, or deleted. If you are adding new frequencies, complete all items in this section for each frequency to be added. If you are modifying attributes of existing frequencies, in addition to Items 5, 6, and 7 (if applicable), complete only the items that have changed for each listed frequency. If you are deleting a frequency, only Items 5, 6, and 7 (if applicable) are required. Frequencies that are currently licensed under this call sign by the FCC will continue to be shown on the Authorization as is, unless a specific action is requested in this section.

Item 5 This item indicates the action the filer wants the FCC to take on the specified frequency(ies). Enter 'A' for Add, 'M' for Modify, or 'D' for Delete.

Items 6 and 7 Enter one frequency or one frequency band per line (e.g., 952.00625 or 1990-2210, as listed in the rules). Enter frequencies in MHz. To request more than 4 frequencies or frequency bands, file multiple copies of Supplement 4.

**Note:** For Subfrequency operation of a Multiple Address System (MAS) (type of operation code 'M' was entered in Item 3 on Schedule I), enter only the assignable center frequency of the 12.5 kHz or 25.0 kHz MAS channel requested, and explain the details of subfrequency use on a supplemental showing. For multiple contiguous 6 MHz channels in the 18142-18580 MHz band, enter the frequency band spanning from 3 MHz below the center frequency of the lowest assignable channel to 3 MHz above the center frequency of the highest assignable channel of each contiguous band of channels (e.g., if all 73 channels are desired, enter 18142-18580).

**Note:** For Broadcast Auxiliary applications, specify the requested channel by its center frequency for single channel operation or specify the specific frequency bands for band-wide operation. For example, an application for a Local Television Transmission Service (LTTS) station operating in the 17700-19700 MHz band should individually list the 17700-18820 MHz, 18920-19160 MHz, and 19260-19700 MHz sub-bands.

**Item 8** Enter the tolerance or frequency stability (in percent) of the transmitter under the conditions in which it will be operated. Normally, this is the same as the type accepted/notification value.

**Item 9** Enter the Effective Isotropic Radiated Power (EIRP), in dBm rounded to one decimal place, radiated off the transmitting antenna. For a periscope antenna system, this is the anticipated EIRP radiated off its reflector. If Automatic Transmitter Power Control transmitters are used, specify the maximum EIRP. Do not enter the coordinated or nominal transmit power.

**Item 10** Enter the full emission designator of the transmitter, composed of its necessary bandwidth and emission type.

**Note:** In order to modify an Emission Designator (Item 10), and its associated Digital Modulation Rate (Item 11) and Digital Modulation Type (Item 12), complete Items 5, 6, and if necessary, 7. Provide all existing and all new emission designators in the space provided (up to 4 - complete additional lines if more are required). If necessary, also provide the associated digital modulation rate and type. Do not provide emission designators that are no longer to be used. Emission designators not listed will be deleted from the listed frequency.

**Note:** For Subfrequency operation of a Multiple Address System (MAS) (type of operation code 'M' was entered in Item 3 on Schedule I), enter an assignable channel emission designator comprising the full assignable channel bandwidth and the subfrequency emission type, and an additional emission designator for each emission actually used on subfrequencies within the assignable channel (e.g., for a 1K20D1D emission operating on a subfrequency of an assignable 12.5 kHz MAS channel, enter 12K5D1D and 1K20D1D), and explain the details of subfrequency use on a supplemental showing. For multiple contiguous 6 MHz channels in the 18142-18580 MHz band, enter all emission designators to be used on any of the 6 MHz channels in the band, regardless of specific frequency/emission block plans.

**Item 11** For digital systems, enter the digital modulation rate in kbps (kilobits per second).

**Item 12** For digital systems, enter the digital modulation type.

**Item 13** Enter the transmitter manufacturer.

**Item 14** Enter the transmitter model number.

**Item 15** Automatic Transmitter Power Control (ATPC) is a feature that automatically adjusts transmitter output power based on path fading detected at the far-end receivers. Enter 'Y' or 'N' to indicate use of ATPC.

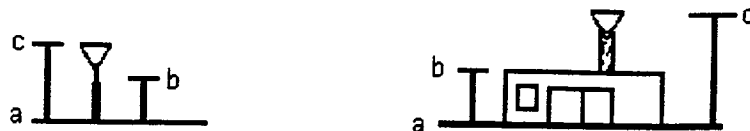


Figure 1 - Antenna Structure Figure Examples:

Table 1 - Type of Operation Codes/Station Classes/Transmit Location Types/Path Codes

Type of Operation Code	Station Class	Transmit Location Type	Sub-Type of Operation	Description	Path Type	Path Code	Radio Services*
F	FXO	Fixed	N/A	Permanent Fixed Point-to-Point	N/A	PP	OFS, CF, BAF
M	FXO	Fixed	FT	Fixed Two-way Master-Remote	Master to Remote	MR	OFS
					Remote to Master	RM	OFS
M	FXO	Fixed	FO	Fixed One-way Outbound Master	Master to Remote	MR	OFS
M	FXO	Fixed	FI	Fixed One-way Inbound Master	Remote to Master	RM	OFS
M	MO	Area	MM	Mobile (mobile-only)	Mobile	MM	OFS
M	FXO	Fixed	MM	Mobile Master (with other MAS types)	Mobile	MM	OFS
M	FXO	Fixed	MT	Multiple Two-way Master-Remote	Master to Remote	MR	OFS
					Remote to Master	RM	OFS
M	FXO	Fixed	MO	Multiple One-way Outbound Master	Master to Remote	MR	OFS
D	FXO	Fixed	FD	Fixed Two-way Nodal-User	Nodal to User	NU	CE, PE
					User to Nodal	UN	CE, PE
D	FXO	Fixed	MD	Multiple Two-way Nodal-User	Nodal to User	NU	CE, PE
					User to Nodal	UN	CE, PE
T	FX5	Area	N/A	Temporary Fixed	N/A	MM	OFS, CF, CT, TP
T	MO	Area	N/A	Mobile	N/A	MM	OFS, CF, CT, TP
T	MO5	Area	N/A	Temporary Fixed/Mobile	N/A	MM	OFS, CF, CT, TP
18	FXO	Area	N/A	18 GHz Low Power	N/A	MM	OFS
31	FXO	Area	N/A	31 GHz	N/A	MM	OFS
38	FXO	Area	N/A	38 GHz	N/A	MM	OFS, CF

\*Radio Service

OFS = MW, MG, WR, WA, WM

BAF = TS, TI, TB, TT, AS, AI, AB

**Table 2 - Path Codes**

\* = Required items

- = Optional items, based on your particular system

SUPPLEMENT AND ITEM	PATH CODE		
Supplement 2 - Path Data	MR or NU	RM or UN	MM
7) Antenna Manufacturer*	Enter the Actual Value: except paths for MAS or DEMS Sub-Type of Operation Multiple Two-way Master-Remote/Nodal-User and Multiple One-way Outbound Master, enter the Typical Value	Enter the Typical Value	Enter the Typical Value
8) Antenna Model*	Enter the Actual Value: except paths for MAS or DEMS Sub-Type of Operation Multiple Two-way Master-Remote/Nodal-User and Multiple One-way Outbound Master, enter the Typical Value	Enter the Typical Value	Enter the Typical Value
9) Hgt to Center*	Enter the Actual Value: except paths for MAS or DEMS Sub-Type of Operation Multiple Two-way Master-Remote/Nodal-User and Multiple One-way Outbound Master, enter 6.1 meters	Enter 6.1 meters	Enter 6.1 meters
10) Beamwidth*	360 degrees	Enter the Typical Value	Enter the Typical Value
11) Antenna Gain*	Enter the Actual Value	Enter the Typical Value	Enter the Typical Value
12) Diversity Hgt	-	-	-
13) Diversity Beamwidth	-	-	-
14) Diversity Gain	-	-	-
15) Tilt	-	-	-
16) Polarization*	Enter the Actual Value	Enter the Actual Value	Enter the Actual Value
17) Azimuth*	Enter 360 degrees	Enter 999: except if beamwidth = 360 degrees, then azimuth = 360 degrees	Enter 999: except if beamwidth = 360 degrees, then azimuth = 360 degrees
18) Periscope Dimensions-Hgt/Width	-	-	-
19) Periscope Separation	-	-	-
20) Passive Repeater on Path?	-	-	-
21) Is final receiver located outside US?	-	-	-
22) Geostationary arc?	-	-	-
23) Receiver Location Name	-	-	-
24) Call Sign	-	-	-
25) Latitude	-	-	-
26) Longitude	-	-	-
27) Elevation	-	-	-
28) Receiver Antenna Make*	Enter the Typical Value	Enter the Actual Value: except paths for MAS or DEMS Sub-Type of Operation Multiple Two-way Master-Remote/Nodal-User, enter the Typical Value	Enter the Typical Value
29) Receiver Antenna Model*	Enter the Typical Value	Enter the Actual Value: except paths for MAS or DEMS Sub-Type of Operation Multiple Two-way Master-Remote/Nodal-User, enter the Typical Value	Enter the Typical Value

Table 2 - Path Codes (continued)

SUPPLEMENT AND ITEM	PATH CODE		
Supplement 2 - Path Data	MR or NU	RM or UN	MM
30) Hgt to Center*	Enter 6.1 meters	Enter the Actual Value: except paths for MAS or DEMS Sub-Type of Operation Multiple Two-way Master-Remote/Nodal-User, enter 6.1 meters	Enter 6.1 meters
31) Beamwidth*	Enter the Typical Value	Enter 360 degrees	Enter the Typical Value
32) Gain*	Enter the Typical Value	Enter the Actual Value	Enter the Typical Value
33) Diversity Hgt	-	-	-
34) Diversity Beamwidth	-	-	-
35) Diversity Gain	-	-	-
36) RX Periscope Dimensions -	-	-	-
37) RX Periscope Separation	-	-	-

Supplement 4 - Frequency Data	MR or NU	RM or UN	MM
8) Tolerance*	Enter the Actual Value	Enter the Actual Value	Enter Highest Used Value
9) EIRP	Enter Highest Used Value	Enter Highest Used Value	Enter Highest Used Value
10) Emission Designator*	Enter the Actual Value	Enter the Actual Value	Enter Highest Used Value <sup>1</sup>
13) Transmitter Make*	Enter the Actual Value: except paths for MAS or DEMS Sub-Type of Operation Multiple Two-way Master-Remote/Nodal-User and Multiple One-way Outbound Master, enter the Typical Value	Enter the Typical Value	Enter the Typical Value
14) Transmitter Model*	Enter the Actual Value: except Multiple Two-way Master-Remote, enter the Typical Value	Enter the Typical Value	Enter the Typical Value
15) ATPC	Enter the Actual Value	Enter the Actual Value	Enter the Actual Value

<sup>1</sup> For Emission Designators for Type of Operation MAS and Sup-Type Mobile Master, those with the widest bandwidths and most general emission types are the highest used values; for band-wide requests, do not enter more than 4 such emission designators to satisfy this requirement.

Technical Data Schedule for the  
Fixed Microwave and Microwave Broadcast Auxiliary Services  
(Parts 101 and 74)

Approved by OMB  
3060 - 0798  
See 601 Main Form instructions  
for public burden estimate

Administrative Information

1) Is this application being filed as part of a pack?: <span style="float: right;">( ) <u>Yes</u>/No</span>		
2a) If the answer to Item 1 is 'Yes', enter the pack identification number (required if the pack identification number has already been assigned by the FCC):		
2b) Pack Name:		
3) Type of Operation (refer to instructions) Check One Only: ( ) Permanent Fixed Point to Point                      ( ) 18 GHz Low Power ( ) Multiple Address System (MAS)                      ( ) 31 GHz ( ) Temporary Fixed/Mobile                      ( ) 38 GHz ( ) Digital Electronic Message Service (DEMS)	4) Station Class:	5) DEMS only: SMSA:
6) If this request is for a Modification, Renewal/Modification, or Amendment of a currently pending application, does it, along with all minor Modification or Amendment requests filed since the last major action granted by the Commission produce a cumulative effect that would equal or exceed the criteria for a major filing? <span style="float: right;">( ) <u>Yes</u>/No</span>		

Control Point (Technical Point of Contact)

7) Action A/M	8) Location Street Address, City or Town, County, State	9) Telephone Number

Broadcast Auxiliary Only

If there is an associated Parent Station, provide:	10a) Facility Id of Parent Station:	10b) Radio Service of Parent Station:	10c) City and State of Parent Station Principal Community:
If there is no associated parent station, applicant certifies that it is a Broadcast Network Entity and completes Item 11.			11) State of Primary Operation:

Frequency Coordination Information

12) Has frequency coordination been completed for this application? <span style="float: right;">( ) <u>Yes</u>/No</span>		
Complete Items 13 through 15 if not self-coordinated		
13) Frequency Coordination Number	14) Name of Frequency Coordinator	15) Telephone Number

# Transmit Location Data

## Transmit Location Information

1) Action Requested: (    ) <u>Add a New Transmit Location</u> (for New Licenses Only) <u>Modify an Existing Location</u> (for Existing Licenses Only)	
2) Transmit Location Name:	
3) Would a Commission grant of Authorization for this location be an action which may have a significant environmental effect? See Section 1.1307 of 47 CFR. If 'Yes', submit an environmental assessment as required by 47 CFR, Sections 1.1308 and 1.1311. (    ) <u>Yes</u> <u>No</u>	
4) If the proposed site is located in one of the quiet zones listed in Item 4 of the Instructions, provide the date the proper authority was notified:	

## Fixed Transmit Location

5) FCC Antenna Structure Registration # or N/A (FAA Notification not Required):		
6) Latitude (DD-MM-SS.S):  (    ) <u>N</u> or <u>S</u> <b>NAD83</b>	7) Longitude (DDD-MM-SS.S):  (    ) <u>E</u> or <u>W</u> <b>NAD83</b>	
8) Street Address or Other Location Description:		
9) City:	10) County:	11) State:
12) Elevation of Location AMSL (meters) ( 'a' in Antenna Structure Sample Figures):		13) Support Structure Type:
14) Overall Ht AGL Without Appurtenances (meters) ( 'b' in Antenna Structure Sample Figures):		15) Overall Ht AGL With Appurtenances (meters) ( 'c' in Antenna Structure Sample Figures):

## Area Transmit Location

16) Area of Operation Code:		17) Temporary Fixed or Mobile Radius (km):	
18) Latitude (DD-MM-SS.S):  (    ) <u>N</u> or <u>S</u> <b>NAD83</b>	19) Longitude (DDD-MM-SS.S):  (    ) <u>E</u> or <u>W</u> <b>NAD83</b>		
20) Maximum Latitude (DD-MM-SS.S):    Use for rectangle only  <b>NAD83</b> (    ) <u>N</u> or <u>S</u>	21) Maximum Longitude (DDD-MM-SS.S):    Use for rectangle only  <b>NAD83</b> (    ) <u>E</u> or <u>W</u>		
22) City:	23) County:	24) State:	
25) Is any part of your operation North of Line A? (    ) <u>Yes</u> <u>No</u> Is any part of your operation East of Line C? (    ) <u>Yes</u> <u>No</u>			
26) Description: (Only for Area of Operation Code 'O')			



## Transmit Location

1) Transmit location name:		2) Path number:	
3) Latitude (DD-MM-SS.S):		4) Longitude (DDD-MM-SS.S):	
5) Action Requested: (    ) <u>Add New Path</u> <u>Modify Existing Path</u> <u>Delete Existing Path</u>			
6a) For MAS or DEMS only, MAS or DEMS Sub-Type of Operation (Enter only one per path): <b>MAS or DEMS</b> (    ) Fixed Two-way Master-Remote/Nodal-User                      (    ) Multiple Two-way Master-Remote/Nodal-User <b>MAS ONLY</b> (    ) Fixed One-way Outbound Master                      (    ) Multiple One-way Outbound Master (    ) Fixed One-way Inbound Master                      (    ) Mobile Master		6b) Path code (Enter only one per path): <b>MAS</b> (    ) Remote to Master (    ) Master to Remote <b>DEMS</b> (    ) Nodal to User (    ) User to Nodal	

## Transmit Antenna

7) Antenna Manufacturer:		8) Antenna Model Number:	
9) Height to Center of Antenna AGL (meters):	10) Beamwidth (degrees):	11) Antenna Gain (dBi):	
12) Diversity Antenna Height AGL (meters):	13) Diversity Beamwidth (degrees):	14) Diversity Antenna Gain (dBi):	
15) Elevation (Tilt) Angle (degrees):	16) Polarization:	17) Azimuth to RX Location or Passive Repeater (degrees):	
18) Periscope Reflector Dimensions (meters): Height:                      Width:		19) Periscope Reflector Separation (meters):	
20) Does this path include passive repeater? (    ) <u>Yes</u> <u>No</u>			
21) If the final receiver is located outside of the United States, enter the country in the space provided and attach an exhibit explaining circumstances.			
22) Does this filing add or modify emanations in the 5925-6425 MHz band pointed within 2 degrees of the Geostationary Satellite Arc? *If 'Yes', attach waiver request explaining circumstances. (    ) <u>Yes</u> <u>No</u>			

## Final Receiver

23) Receiver Location Name:		24) Call Sign:	
25) Latitude (DD-MM-SS.S): <b>NAD83</b> (    ) <u>N</u> or <u>S</u>	26) Longitude (DDD-MM-SS.S): <b>NAD83</b> (    ) <u>E</u> or <u>W</u>	27) Ground Elevation (meters):	
28) Receiver antenna manufacturer:		29) Receiver antenna model number:	
30) Height to Center of RX Antenna AGL (meters):	31) RX Antenna Beamwidth (degrees):	32) RX Antenna Gain (dBi):	
33) Diversity RX Antenna Height AGL (meters):	34) Diversity RX Antenna Beamwidth (degrees):	35) Diversity RX Antenna Gain (dBi):	
36) RX Periscope Reflector Dimensions (meters): Height:                      Width:		37) RX Periscope Reflector Separation (meters):	

## Passive Repeaters (PR)

## Transmit Location

1) Transmit Location Name:	2) Path Number:
3) Latitude (DD-MM-SS.S):	4) Longitude (DDD-MM-SS.S):

5) Action Requested: ( )	<u>Add New Passive Repeater</u>	<u>Modify Existing Passive Repeater</u>	<u>Delete Existing Passive Repeater</u>
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## Passive Repeater Location Information

6) Passive Repeater Id: ( )		7) Passive Repeater Sequence Number: ( )	
8) Passive Repeater Location Name:			
9) FCC Antenna Structure Registration # or N/A (FAA Notification Not Required):			
10) Latitude (DD-MM-SS.S): <div style="text-align: right;">NAD83 ( ) <u>N</u> or <u>S</u></div>		11) Longitude (DDD-MM-SS.S): <div style="text-align: right;">NAD83 ( ) <u>E</u> or <u>W</u></div>	
12) Elevation of Location AMSL (meters) ( 'a' in figures):		13) Support Structure Type:	
14) Overall Ht AGL Without Appurtenances (meters) ( 'b' in figures):		15) Overall Ht AGL With Appurtenances (meters) ( 'c' in figures):	
16) Passive Repeater Antenna Manufacturer:		17) Passive Repeater Antenna Model Number:	
18) Height to Center of Passive Repeater Antenna AGL (meters):	19) Back-to-Back RX Dish Gain (dBi):	20) Back-to-Back TX Dish Gain (dBi):	
21) Reflector Dimensions (meters):  Height:                      Width:	22) Transmit Polarization:	23) Azimuth to RX Location or Next Passive Repeater:	
24) Would a Commission grant of Authorization for this location be an action which may have a significant environmental effect? See Section 1.1307 of 47 CFR. ( ) <u>Yes</u> <u>No</u> If 'Yes', submit an environmental assessment as required by 47 CFR, Sections 1.1308 and 1.1311.			

**FCC Form 601**

Schedule I

Supplement 4

**Frequency Data**
**Transmitter Location Information**

1) Transmit Location Name:	2) Path Number:
3) Latitude (DD-MM-SS.S):	4) Longitude (DDD-MM-SS.S):

**Frequency Information**

5) Action A/M/D	6) Lower or Center Frequency	7) Upper Frequency (MHz)	8) Tolerance (%)	9) EIRP (dBm)	10 Emission Designator	11) Digital Modulation Rate	12) Digital Modulation Type
	13) Transmitter Manufacturer		14) Transmitter Model	15) Automatic Transmitter Power Control			

5) Action A/M/D	6) Lower or Center Frequency	7) Upper Frequency (MHz)	8) Tolerance (%)	9) EIRP (dBm)	10 Emission Designator	11) Digital Modulation Rate	12) Digital Modulation Type
	13) Transmitter Manufacturer		14) Transmitter Model	15) Automatic Transmitter Power Control			

5) Action A/M/D	6) Lower or Center Frequency	7) Upper Frequency (MHz)	8) Tolerance (%)	9) EIRP (dBm)	10 Emission Designator	11) Digital Modulation Rate	12) Digital Modulation Type
	13) Transmitter Manufacturer		14) Transmitter Model	15) Automatic Transmitter Power Control			

5) Action A/M/D	6) Lower or Center Frequency	7) Upper Frequency (MHz)	8) Tolerance (%)	9) EIRP (dBm)	10 Emission Designator	11) Digital Modulation Rate	12) Digital Modulation Type
	13) Transmitter Manufacturer		14) Transmitter Model	15) Automatic Transmitter Power Control			

Information and Instructions

**Technical Data Schedule for the Paging, Rural,  
Air-ground (General Aviation), and  
Offshore Radiotelephone Services (Part 22)**

Form FCC 601, Schedule J, is a supplementary schedule for use with the FCC Application for Wireless Telecommunications Bureau Radio Service Authorization, FCC 601 Main Form. This schedule is used to apply for an authorization to operate a radio station in the Paging, Rural, Air-ground (General Aviation), and Offshore Radiotelephone Services, as defined in 47 CFR, Part 22. It is also used to amend a pending application or modify an existing license in these services. Additionally, this schedule is used by auction winners that must file site-specific technical data for international coordination or for an environmental assessment of a particular site. The FCC 601 Main Form must be filed in conjunction with this schedule. The FCC 601 Main Form must be filed in conjunction with this schedule.

If you are applying for authorization of fixed transmit station locations and antenna structures, you must file technical information for each location and/or structure using FCC 601, Schedule D, Schedule for Fixed Station Locations and Antenna Structures. It is recommended that you complete Schedule D (if required) prior to completing Schedule J.

If you are applying for authorization of mobile transmit locations or temporary fixed station locations, you must file technical information for each location or station using FCC 601, Schedule E, Schedule for Mobile, Temporary Fixed, and 6.1 Meter Control Station Locations. It is recommended that you complete Schedule E (if required) prior to completing this schedule. When filed in conjunction with Schedule J, Schedule E only applies to Rural Radio (CR), Offshore (CO), and BETRS (CB) radio services.

**Schedule J  
Instructions**

► **Control Points**

This section must be completed only when a control point is to be added, modified, or deleted. If you are adding a new control point, complete all items in this section for each control point to be added. If you are modifying an existing control point, in addition to Items 1 and 2, complete only the items that have changed for the control point. If you are deleting a control point, only Items 1 and 2 are required. Control points that are currently licensed under this call sign by the FCC will continue to be shown on the Authorization as is, unless a specific action is requested in this section.

**Item 1** This item indicates the action the filer wants the FCC to take on the specified control point. Enter 'A' for Add, 'M' for Modify, or 'D' for Delete.

**Item 2** If the control point has been previously licensed under this call sign to the applicant by the FCC, enter its FCC-assigned control point number (located on the Authorization). For a new control point, assign a temporary code to represent the control point. The assigned code should begin with C to indicate it is a control point and end with a number to uniquely identify it (e.g., C1, C2, C3, etc.). The FCC will assign an official number to the new control point, which will appear on the Authorization.

**Item 3** Enter the street address, city or town, county, and state of the control point. Refer to FCC 601 Main Form Instructions, Appendix II, for a list of valid state, jurisdiction, and area abbreviations.

**Item 4** Enter the telephone number, including area code, where a person responsible for operation of the station or systems can be reached.

## ►Antenna Information

This section must be completed only when antenna information is to be added, modified, or deleted. If you are adding a new antenna, complete all items for each antenna to be added. If you are modifying an existing antenna, in addition to Items 5, 6, and 7, complete only the items that have changed for the antenna. If you are deleting an antenna, only Items 5, 6, and 7 are required. Antennas that are currently licensed under this call sign by the FCC will continue to be shown on the Authorization as is, unless a specific action is requested in this section.

**Item 5** This item indicates the action the filer wants the FCC to take on the specified antenna. Enter 'A' for Add, 'M' for Modify, or 'D' for Delete.

**Item 6** For each antenna, enter its corresponding location number, as entered on Schedule D Item 2 or Schedule E Item 2. If the location has been previously licensed under this call sign by the FCC, enter the FCC-assigned location number (located on the Authorization). Otherwise, enter the code assigned on Schedule D or Schedule E to represent the location. Refer to the instructions for Schedules D and E for more information on assigning location numbers.

**Item 7** If the antenna has been previously licensed under this call sign by the FCC, enter the antenna's FCC-assigned number (located on the Authorization). Otherwise, enter a temporary code to represent each antenna. The assigned code should begin with an A to indicate it is an antenna and end with a number to uniquely identify it (e.g., A1, A2, A3). A single location can have multiple antennas. Antenna numbers need only be unique within each location. The FCC will assign an official number to the new antenna, which will appear on the Authorization.

**Note:** Location number (Item 6) and antenna number (Item 7) are used to associate information in the Antenna Information Section with information in the following sections: Frequency Information, Radial Data for Antennas, and Points of Communication for Transmitters. To do this, enter the necessary technical information into the Antenna Information Section using the appropriate location number and antenna number. Then, enter the necessary technical information in each of the related sections for that antenna, using the same location number/antenna number pair. Each antenna specified in the Frequency Information, Radial Data for Antennas, and Points of Communication for Transmitters Sections must have corresponding data in the Antenna Information Section.

**Item 8** Enter the actual height above ground level to the tip of the antenna. Enter this item in meters, rounded to the nearest tenth.

**Item 9** Enter the average radiation center height above average terrain (AAT) of the eight cardinal radials. Enter this item in meters, rounded to the nearest tenth. See the rules for your radio service for instructions on calculating AAT.

**Item 10** Enter the beamwidth of the main lobe of a directional antenna used with a fixed station. Complete this item for fixed stations only. Enter 360 for an omni-directional antenna.

**Item 11** Enter the ratio (decibels) of the power required at the input of loss-free reference antenna to the power supplied to the input of the given antenna to produce, in a given direction, the same field strength or the same power-flux density at the same distance. This information should be available from the specification sheet included with the antenna at the time of purchase.

**Item 12** Enter the angle in the horizontal plane of the transmitting antenna main lobe measured clockwise with respect to True North in degrees, or enter 360 to indicate that the transmitting antenna is omni-directional.

## ►Frequency Information

This section must be completed only when frequencies are to be added, modified, or deleted. If you are adding a new frequency, complete all items for each frequency to be added. If you are modifying attributes of an existing frequency, in addition to Items 13 and 14, complete only the items that have changed for the frequency. If you are deleting a frequency, only Items 13 through 17 are required. Frequencies that are currently licensed under this call sign by the FCC will continue to be shown on the Authorization as is, unless a specific action is requested in this section.

Enter frequency information for each antenna specified in the Antenna Information Section. For multiple frequency lines, repeat the location number/antenna number combination for each frequency. For example:

<u>Location</u>	<u>Antenna</u>	<u>Frequency (MHz)</u>
F1	A1	XXX.XXXX
F1	A1	YYY.YYYY
F1	A1	ZZZ.ZZZZ
F1	A2	AAA.AAAA

F1	A2	BBBBB.BBBB
F2	A1	CCCCC.CCCC
F2	A1	DDDDD.DDDD

**Item 13** This item indicates the action the filer wants the FCC to take on the specified antenna. Enter 'A' for Add, 'M' for Modify, or 'D' for Delete.

**Item 14** For each antenna, enter its corresponding location number, as entered in Item 6 of the Antenna Information Section of this Schedule.

**Item 15** For each antenna, enter its corresponding antenna number, as entered in Item 7 of the Antenna Information Section of this Schedule.

**Note:** Each location number (Item 14) and antenna number (Item 15) pair specified in the Frequency Information Section must have corresponding data in the Antenna Information Section.

**Item 16** Enter, in Megahertz (MHz), the center frequencies of the channels on which the transmitters operate or are proposed to operate.

**Item 17** Enter the appropriate station class code from the following table. Definitions for most of these items are listed in the Commission's rules.

Air-ground Signaling .....	FBSI
Auxiliary Test .....	FXTS
Base .....	FBBS
Central Office .....	FXCO
Control .....	FXCT
Dispatch .....	FXDI
Fixed Relay .....	FXRX
Fixed Subscriber .....	FXSB
Ground .....	FBGS
Inter-Office .....	FXIO
Mobile Subscriber .....	MLSB
Repeater .....	FXRP
Standby .....	FBST
Temporary Fixed .....	FX5

**Item 18** This item reports the maximum effective radiated power (ERP) in any direction on the specified channel. The answer must be stated in watts.

**Item 19** Enter the actual transmitter output power in watts.

**Item 20** Complete this item only if the filing requests authority to use an emission type that is not already authorized in the FCC rules for use by all stations in the pertinent radio service.

#### ►Radial Data for Antennas

This section must be completed only when radial data for antennas is to be added, modified, or deleted. If you are adding new radial data, complete all items for each radial data block to be added. If you are modifying existing radial data, complete all items for the radial data block to be modified. If you are deleting radial data, only Items 21 through 24 are required. Radial data that is currently licensed under this call sign by the FCC will continue to be shown on the Authorization as is, unless a specific action is requested in this section.

**Item 21** Indicate the action the filer wants the FCC on the radial data of the specified antenna. Enter 'A' for Add, 'M' for Modify, or 'D' for Delete.

**Items 22-24** Enter the location number, antenna number, and channel center frequency, as specified in the Antenna Information and Frequency Information Sections.

**Note:** Each location number, antenna number, and channel center frequency specified in the Radial Data for Antennas Section must have corresponding data in the Antenna Information and Frequency Information Sections.

Item 25 Enter the height of the antenna center of radiation above the average terrain elevation (RCHAAT) along each of the eight cardinal radials. Enter this item in meters, rounded to the nearest tenth.

Item 26 Enter the effective radiated power (ERP) for each of the eight cardinal radials. See the Commission's rules for your radio service for instructions on calculating RCHAAT.

#### ►Points of Communication for Transmitters

These items describe fixed points of communication for: (1) stations in the Rural Radiotelephone Services serving individually licensed subscribers; (2) point to point transmitters; and (3) point-to-multipoint transmitters operating on channels that are assigned only to stations that communicate with four or more points. These items should not be completed by filers for any other purpose. In the Rural Radiotelephone Services (radio service code CR) only those stations operating under station class code FXCT (fixed control station) may complete this section.

This section must be completed only when points of communication are to be added, modified, or deleted. If you are adding new points of communication, complete all items for each point of communication to be added. If you are modifying existing points of communication, complete all items for the point of communication to be modified. If you are deleting points of communication, only Items 27 through 30 are required. Points of communication that are currently licensed under this call sign by the FCC will continue to be shown on the Authorization as is, unless a specific action is requested in this section.

Item 27 This item indicates the action the filer wants the FCC to take on the specified point of communication. Enter 'A' for Add, 'M' for Modify, or 'D' for Delete.

Item 28 Enter the corresponding transmit location number, as entered in Item 14 of this schedule.

Item 29 Enter the corresponding transmitting antenna number, as entered in Item 15 of this schedule.

Item 30 Enter the corresponding transmitting channel center frequency, as entered in Item 16 of this schedule.

Item 31 Enter the name of the city or town of the point of communication.

Item 32 Enter the state of the point of communication. Refer to FCC 601 Main Form Instructions, Appendix II, for a list of valid state, jurisdiction, and area abbreviations.

Item 33 Enter in Megahertz (MHz), the center frequencies of the point of communication.

Items 34 and 35 Enter the geographic coordinates of the location, referenced to the North American Datum of 1983 (NAD83). This information can be determined in many ways, including a GPS receiver, a 7.5 minute topographical quadrangle map of the area, or you may consult the city or county surveyor in your area. Topographical maps may be purchased from the U.S. Geological Survey, Washington, DC 20242 or from its office in Denver, Colorado 80225.

**Note:** Location coordinates (latitude and longitude) for sites in the Continental United States, Puerto Rico, the U.S. Virgin Islands, Alaska, Hawaii, American Samoa, and Guam must be referenced to the North American Datum of 1983 (NAD83). Coordinates for sites in the Northern Mariana Islands, Wake Island, and Midway Island should be referenced to the applicable local datums. If the source from which you obtain the coordinates still utilizes an older datum (i.e., NAD27, PRD40) you must convert to NAD83. Conversion routines are available through the internet at <http://www.fcc.gov/wtb/uls/nadcon.html>.

Enter the latitude using the format *DD-MM-SS*, where the degrees (*DD*) term can have a value in the range of 0 to 90, minutes (*MM*) can range from 0 to 59, and seconds (*SS*) can range from 0 to 59.9. If desired, seconds may be expressed to the nearest tenth of a second (in which case, use the format *DD-MM-SS.S*). In the lower right corner, specify the direction as either N for North or S for South.

Enter the longitude using the format *DDD-MM-SS*, where the degrees (*DDD*) term can have a value in the range of 0 to 180, minutes (*MM*) can range from 0 to 59, and seconds (*SS*) can range from 0 to 59.9. If desired, seconds may be expressed to the nearest tenth of a second (in which case, use the format *DDD-MM-SS.S*). In the lower right corner, specify the direction as either E for East or W for West.

Item 36 Enter the subscriber call sign of the point of communication.

Technical Data Schedule for the  
Paging, Rural, Air-ground (General Aviation), and  
Offshore Radiotelephone Services (Part 22)

Approved by OMB  
3060 - 0798  
See 601 Main Form Instructions  
for public burden estimate

Control Points

1) Action A/M/D	2) Control Point Number	3) Location Street Address, City or Town, County, State	4) Telephone Number

Antenna Information

5) Action A/M/D	6) Location Number	7) Antenna Number	8) Height to Tip AGL (meters)	9) Height of Center of Radiation AAT (meters)	10) Beamwidth of Main Lobe (degrees)	11) Gain (dB)	12) Azimuth (degrees)

Frequency Information

13) Action A/M/D	14) Location Number	15) Antenna Number	16) Channel Center Frequency (MHz)	17) Station Class	18) Maximum Transmitting ERP (watts)	19) Transmitter Output Power (watts)	20) Nonstandard Emission Designator



# Radial Data for Antennas

					0°	45°	90°	135°	180°	225°	270°	315°
21) Action A/M/D	22) Location Number	23) Antenna Number	24) Frequency (MHz)	25) RCHAAT (meters)								
				26) ERP (watts)								

					0°	45°	90°	135°	180°	225°	270°	315°
21) Action A/M/D	22) Location Number	23) Antenna Number	24) Frequency (MHz)	25) RCHAAT (meters)								
				26) ERP (watts)								

					0°	45°	90°	135°	180°	225°	270°	315°
21) Action A/M/D	22) Location Number	23) Antenna Number	24) Frequency (MHz)	25) RCHAAT (meters)								
				26) ERP (watts)								

					0°	45°	90°	135°	180°	225°	270°	315°
21) Action A/M/D	22) Location Number	23) Antenna Number	24) Frequency (MHz)	25) RCHAAT (meters)								
				26) ERP (watts)								

					0°	45°	90°	135°	180°	225°	270°	315°
21) Action A/M/D	22) Location Number	23) Antenna Number	24) Frequency (MHz)	25) RCHAAT (meters)								
				26) ERP (watts)								

[illegible]

Information and Instructions

## Schedule for Required Notifications for Wireless Services

Form FCC 601, Schedule K, is a supplementary schedule for use with the FCC Application for Wireless Telecommunications Bureau Radio Service Authorization, FCC 601 Main Form. The FCC 601 Main Form must be filed in conjunction with this schedule. Complete this schedule to notify the FCC that, within the required time period:

Either buildout/coverage or construction requirements have been satisfied;

Compliance with yearly station construction commitments for licensees with approved extended implementation plans has been met;

To request a regular authorization for paging facilities currently operating under developmental authority.

### ►Purpose

Enter the one-letter abbreviation that indicates the purpose for which the application is being filed (1, 2, 3, 4, S, D, or G), as specified in Sections 1, 2, 3, and 4 of this schedule.

**Note:** Only one Notification purpose code may be selected per FCC 601 Main Form/Schedule K filing.

### ►Section 1 - Satisfaction of Buildout/Coverage Requirements (Market based services only)

**Note:** Cellular Radiotelephone Services (CL) should use the Construction Requirements portion of this schedule (Section 2).

Use this section if this notification is for satisfaction of buildout/coverage requirements. Typically, buildout/coverage requirements apply when a specific portion of a geographic area and a specific portion of the population contained within that geographic area must be provided service by a specific date. Not all radio services use all buildout/coverage requirements. Refer to the Commission's rules for more information on buildout/coverage requirements and how they may apply to your service.

On the Purpose line at the top of this schedule, enter one of the following Notification Purpose Codes:

Enter '1' if 1st buildout/coverage requirement has been satisfied.

Enter '2' if 2nd buildout/coverage requirement has been satisfied.

Enter '3' if 3rd buildout/coverage requirement has been satisfied.

Enter '4' if 4th buildout/coverage requirement has been satisfied.

**Note:** Licensees must notify the FCC of satisfaction of buildout/coverage requirements when they are met. In instances where notification of buildout/coverage requirements are received for a call sign and previous buildout/coverage requirements have not been received by the FCC, it will be assumed that the higher requirement and all lower requirements have been satisfied (e.g., requirement 2 is submitted and requirement 1 has not been received - it will be assumed that buildout/coverage requirement 1 and buildout/coverage requirement 2 have been satisfied).

Also complete Section 5. List in Item 5a the call signs held by the applicant where the indicated buildout/coverage requirement has been satisfied.

► **Section 2 - Satisfaction of Construction Requirements (Site-licensed services only)**

**Note:** Cellular Radiotelephone Services (CL) should use the Construction Requirements portion of this schedule (Section 2).

Use this section if this notification is for satisfaction of construction requirements. Typically, construction requirements apply when specific authorized components of a license must be constructed and service commenced by a specific date. Refer to the Commission's rules for more information on construction requirements and how they may apply to your service.

On the Purpose line at the top of this schedule, enter 'S'. Also complete Section 5, as applicable. List the call signs, location numbers, frequencies, etc., where construction requirements have been satisfied.

► **Section 3 - Request for Regular Authorization for Facilities Previously Operating under Developmental Authority (Paging Services only)**

Use this section if this is a notification to request regular authorization for paging facilities previously operating under developmental authority. On the Purpose line at the top of this schedule, enter 'D'.

Also complete Section 5. List in Item 5a the call signs held by the applicant where a request is being made for a regular authorization for paging facilities previously operating under developmental authority.

► **Section 4 - Extended Implementation (Slow Growth) (Land Mobile services only).**

Use this section if this is a notification of compliance with yearly station construction commitments for licensees with approved extended implementation plans. Refer to 47 CFR §§ 90.629 and 90.155 for more information on Extended Implementation. On the Purpose line at the top of this schedule, enter 'G'.

Also complete Section 5. List in Item 5a the call signs held by the applicant where a such notifications are being made.

► **Section 5 - Call Signs/Locations/Frequencies**

For notification of buildout/coverage requirements (Section 1), only complete Item 5a.

For notification of construction requirements (Section 2), complete Items 5a through 5f, as required. Only complete those items necessary to describe what has been constructed. For example, to notify of construction of a site under a call sign, only complete Items 5a and 5b.

For notification of a request for regular paging authorization for facilities previously operating under developmental authority (Section 3), only complete Item 5a.

For notification of compliance with yearly station construction commitments for licensees with approved extended implementation plans (Section 4), only complete Item 5a.

**5a** In this item, list the call signs where buildout/coverage or construction requirements indicated in Sections 1 or 2 have been satisfied, where a regular paging authorization for facilities previously operating under developmental authority is being requested in Section 3, or where notification of a request for regular paging authorization for facilities previously operating under developmental authority is being indicated in Section 4. Call signs are located on FCC Authorizations.

**5b** In this item list the location numbers where construction requirements have been satisfied. Location numbers are listed on FCC Authorizations and are used in the following radio services: Aviation Ground, Maritime Coast, Cellular, Land Mobile, and Paging Services.

**5c** In this item list the path numbers where construction requirements have been satisfied. Path numbers are located on FCC Authorizations and are only used in the Microwave Radio Services.

**5d and 5e** In this item list the frequencies, in Megahertz (MHz), where construction requirements have been satisfied. Enter the center frequency, or the lower frequency of a frequency band, in Item 5d. If applicable, enter the upper frequency of a frequency band in Item 5e. Authorized frequencies are located on FCC Authorizations.

**5f** In this item list number of operational mobiles. Land Mobile Radio Services operating in the 470 - 512 MHz band and non-SMR conventional systems operating above 800 MHz only.

**Schedule for  
Required Notifications for Wireless Services**

**Purpose**

The purpose of this submission: ( ) (Enter one purpose only - 1, 2, 3, 4, S, D, or G. See Sections 1, 2, 3, & 4 below and refer to instructions)

**1) Satisfaction of Buildout/Coverage Requirements (Market based services only)**

- 1 1st buildout/coverage requirements for the referenced system have been met. (List call signs in 5a)  
2 2nd buildout/coverage requirements for the referenced system have been met. (List call signs in 5a)  
3 3rd buildout/coverage requirements for the referenced system have been met. (List call signs in 5a)  
4 4th buildout/coverage requirements for the referenced system have been met. (List call signs in 5a)

**2) Satisfaction of Construction Requirements (Site-licensed services only)**

- S Construction requirements for the referenced system have been met. (List, as applicable, call signs, locations, frequencies, etc., in Section 5)

**3) Request for Regular Authorization for Facilities Operating under Developmental Authority (Paging services only)**

- D Notification to request regular authorization for facilities previously operating under developmental authority. (List call signs in 5a)

**4) Extended Implementation (Slow Growth) (Land Mobile services only)**

- G Notification of compliance with yearly station construction commitments for licensees with approved extended implementation plans.

**5) Call Signs/Locations/Frequencies**

5a) Call Sign	5b) Location Number	5c) Path Number (Microwave only)	5d) Center or Lower Frequency (MHz)	5e) Upper Frequency (MHz)	5f) Number of Operational Mobiles (see instructions)

Information and Instructions

## Schedule for Extension of Time Requests for Wireless Services

Form FCC 601, Schedule L, is a supplementary schedule for use with the FCC Application for Wireless Telecommunications Bureau Radio Service Authorization, FCC 601 Main Form. Complete this schedule to request additional time to satisfy buildout/coverage or construction requirements. The FCC 601 Main Form must be filed in conjunction with this schedule.

### ►Purpose

Enter the one-letter abbreviation that indicates the purpose for which the application is being filed (1, 2, 3, 4, or S), as specified in Sections 1 and 2 of this schedule.

**Note:** Only one Extension of Time Request purpose code may be selected per FCC 601 Main Form/Schedule L filing.

### ►Section 1 - Buildout/Coverage Requirements (Market based services only)

**Note:** Cellular Radiotelephone Services (CL) should use the Construction Requirements portion of this schedule (Section 2).

Use this section if this is a request for an extension of time to complete buildout/coverage requirements. Typically, buildout/coverage requirements apply when a specific portion of a geographic area and a specific portion of the population contained within that geographic area must be provided service by a specific date. Not all radio services use all buildout/coverage requirements. Refer to the Commission's rules for more information on buildout/coverage requirements and how they may apply to your service.

On the Purpose line at the top of this schedule, enter one of the following Extension Request Purpose Codes:

Enter '1' if an extension is being requested for 1st buildout/coverage requirements.

Enter '2' if an extension is being requested for 2nd buildout/coverage requirements.

Enter '3' if an extension is being requested for 3rd buildout/coverage requirements.

Enter '4' if an extension is being requested for 4th buildout/coverage requirements.

Also complete Section 3. List in Item 3a the call signs for which the extension of time to meet buildout/coverage requirements is being requested. Additionally, in the field provided at the bottom of this section, enter the new buildout/coverage expiration date being requested. You must also attach an exhibit describing the circumstances and justification for this extension request.

### ►Section 2 - Construction Requirements (Site-licensed services only)

**Note:** Cellular Radiotelephone Services (CL) should use the Construction Requirements portion of this schedule (Section 2).

Use this section if this is a request for an extension of time to complete construction requirements. Typically, construction requirements apply when specific authorized components of a license must be constructed and service commenced by a specific date. Refer to the Commission's rules for more information on construction requirements and how they may apply to your service.

On the Purpose line at the top of this schedule, enter 'S' to request an extension to meet construction requirements for a site licensed service (i.e., location, frequency, etc.). An extension of time may be requested for specific portions of a system. Also complete Section 3, Call Signs, as applicable, indicating the call signs, location numbers, frequencies, etc., for which an extension of time to meet construction requirements is being requested. Additionally, in the field provided at the bottom of this section, enter the new construction expiration date requested. You must also attach an exhibit describing the circumstances and justification for this extension of time request.

### •Section 3 - Call Signs/Locations/Frequencies

This section applies only to an extension to complete buildout/coverage and construction requirements, as indicated by use of Sections 1 or 2 of this schedule.

To request an extension of time to meet buildout/coverage requirements, only complete Item 3a.

To request an extension of time to meet construction requirements, complete Items 3a through 3e, as required. Only complete those items necessary to describe the extension of time requested. For example, to request an extension of time to construct a site under a call sign, only complete Items 3a and 3b.

3a In this item list the call signs where an extension of time to meet buildout/coverage or construction requirements has been requested in Sections 1 or 2. Call signs are located on FCC Authorizations.

3b In this item list the location numbers or transmitter numbers where an extension of time to meet construction requirements has been requested. Location numbers are listed on FCC Authorizations and are used in the following radio services: Aviation Ground, Maritime Coast, Cellular, Land Mobile, and Paging Services.

3c In this item list the path numbers where an extension of time to meet construction requirements has been requested. Path numbers are located on FCC Authorizations and are only used in the Microwave Radio Services.

3d and 3e In this item list the frequencies, in Megahertz (MHz), where an extension of time to meet construction requirements has been requested. Enter the center frequency, or the lower frequency of a frequency band, in Item 3d. If applicable, enter the upper frequency of a frequency band in Item 3e. Authorized frequencies are located on FCC Authorizations.

**Schedule for  
Extension of Time Requests for Wireless Services**

Approved by OMB  
3060 - 0798  
See 601 Main Form Instructions  
for public burden estimate

**Purpose**

The purpose of this submission: ( ) (Enter one purpose only - 1, 2, 3, 4, or S. See Sections 1 & 2 below and refer to instructions)

**1) Buildout/Coverage Requirements (Market based services only)**

<b>1</b>	Extension of Time to meet 1st buildout/coverage requirements. (List call signs in 3a)
<b>2</b>	Extension of Time to meet 2nd buildout/coverage requirements. (List call signs in 3a)
<b>3</b>	Extension of Time to meet 3rd buildout/coverage requirements. (List call signs in 3a)
<b>4</b>	Extension of Time to meet 4th buildout/coverage requirements. (List call signs in 3a)
New buildout/coverage expiration date requested:	
Attach exhibit describing circumstances/justification.	

**2) Construction Requirements (Site-licensed services only)**

<b>S</b>	Extension of Time to meet construction requirements (site, frequency, etc.). (List, as applicable, call signs, locations, frequencies, etc., in Section 3)
New construction expiration date requested:	
Attach exhibit describing circumstances/justification.	

**3) Call Signs/Locations/Frequencies**

3a) Call Sign	3b) Location Number	3c) Path Number (Microwave only)	3d) Center or Lower Frequency (MHz)	3e) Upper Frequency (MHz)